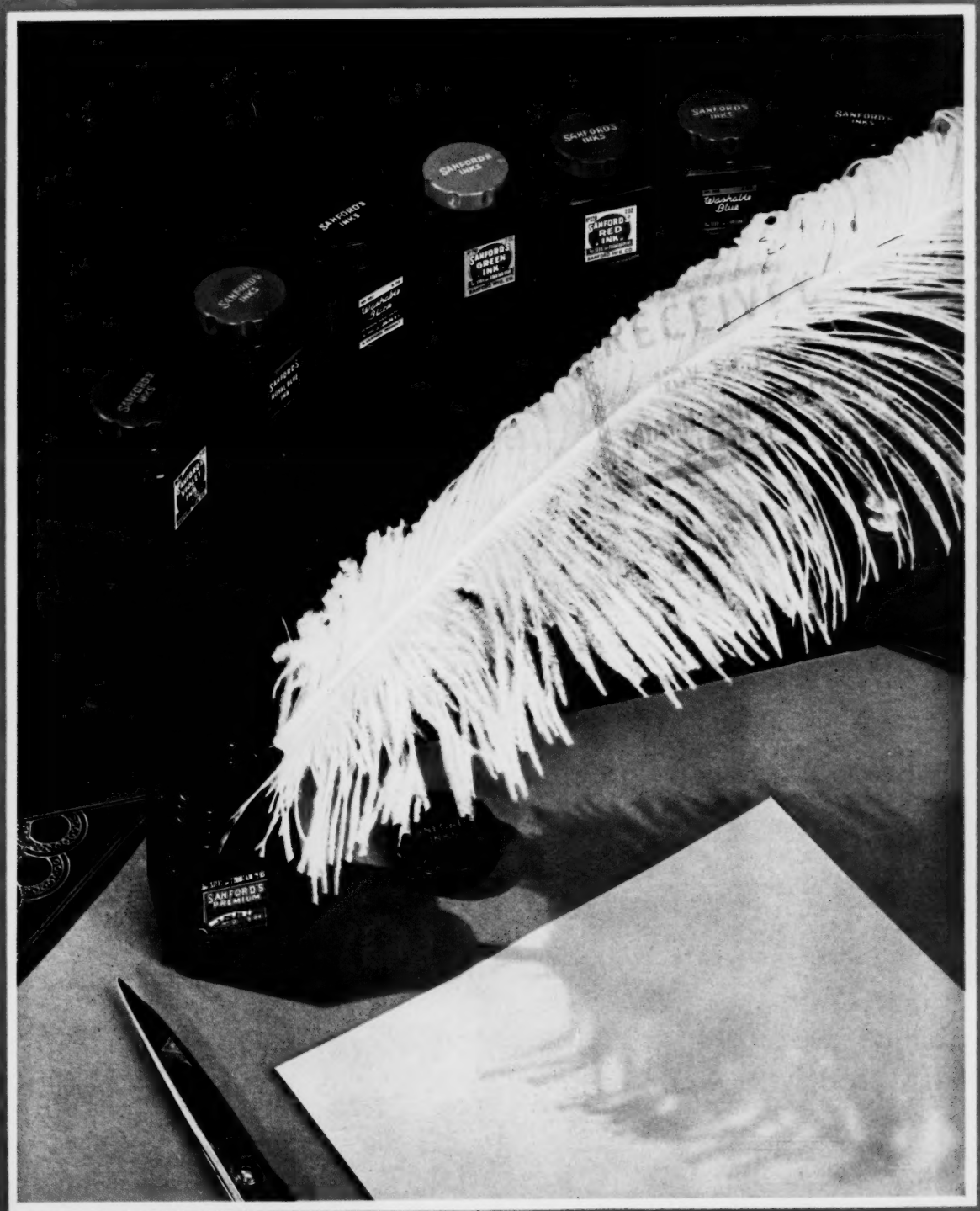
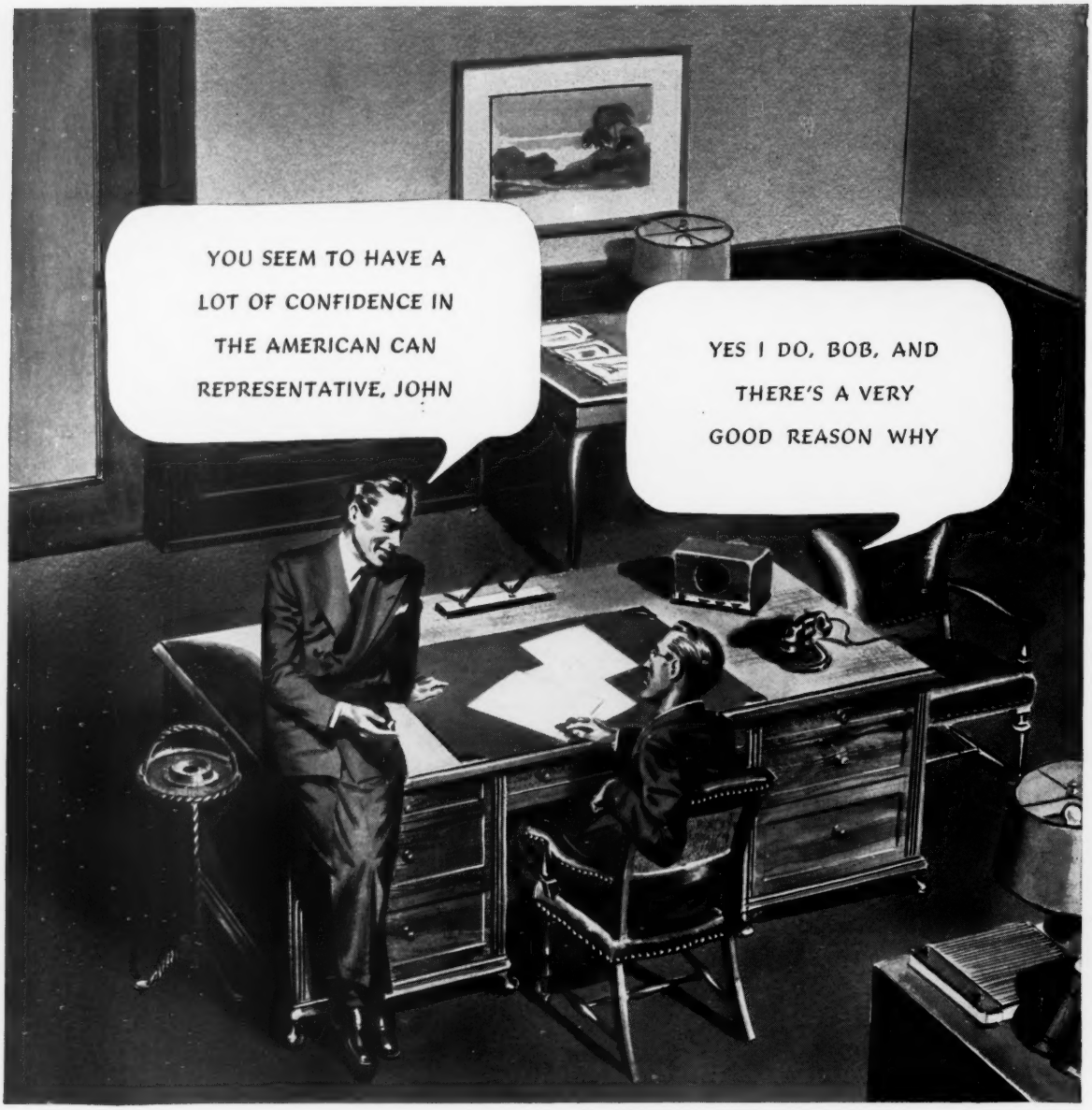
MODERN PACKAGING

BUSINESS ADMIN
Miami
Univer
SCHOOL

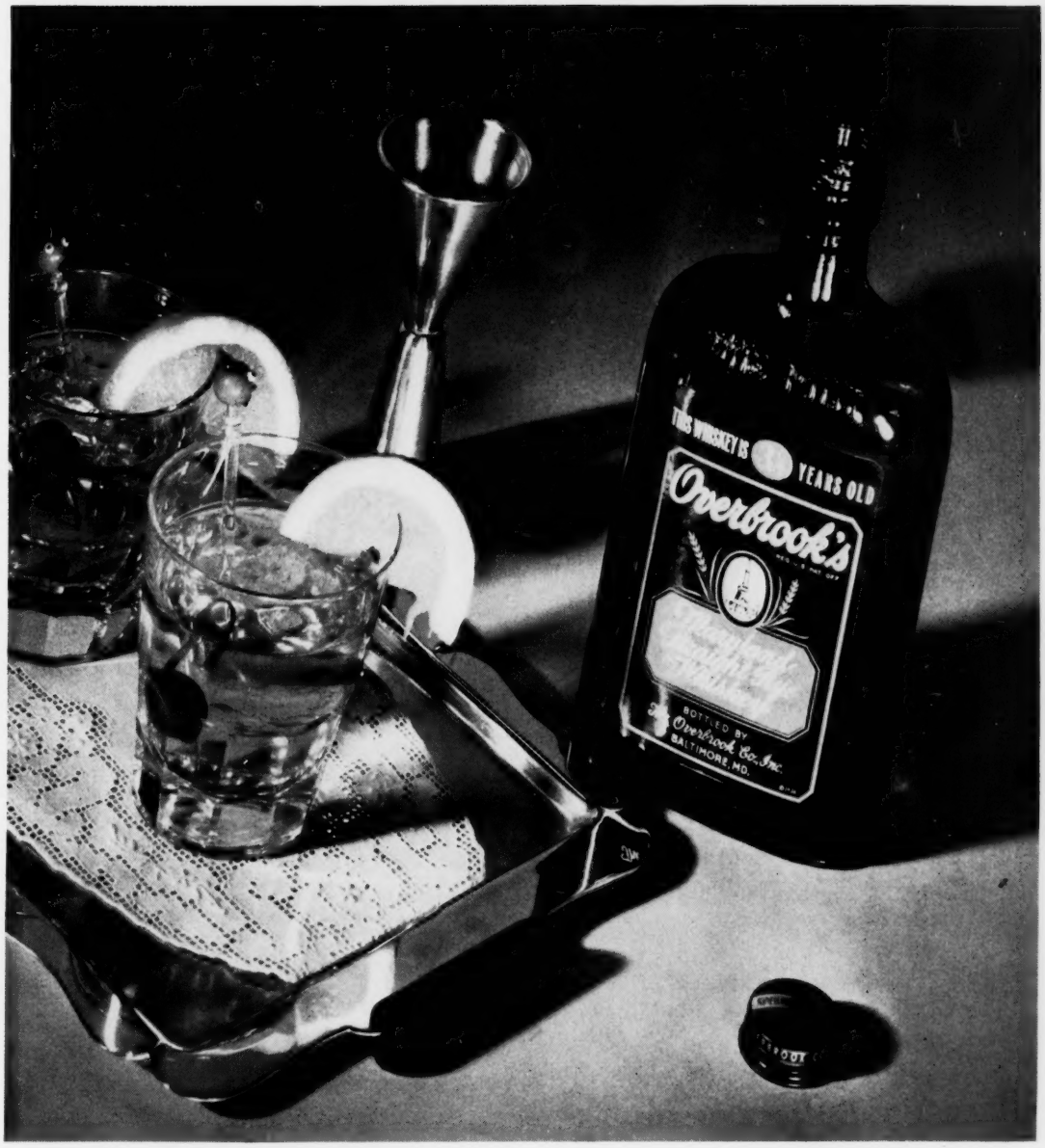


NOVEMBER 1939



"That fellow knows the packaging business. He's had practical training in the factories, he has spent years in various phases of the business. But even more important than the time spent is the *kind* of experience he's had. He's been brought up, you might say, in the traditions American Can follows — complete service to all customers, a high regard for quality, a far-sighted attitude toward business. That kind of experience and perspective is valuable to us."

CANCO AMERICAN CAN COMPANY, 230 PARK AVENUE, NEW YORK, N. Y.



Here's How many packers in glass often employ sound packaging principles to aid in enlarging initial sales of their products into a succession of repeat sales: They pack products into conventional and convenient containers. They label packages attractively and informatively. And they seal them with modern, efficient, closures. Many packers, realizing that convenient packages are a means of holding customers, use Phoenix Metal Caps. These closures permit of easy access to the product. They function as reseals as long or as often as necessary. They aid the packer by aiding the consumer.

PHOENIX METAL CAP CO. *Plants:* 2444 W. Sixteenth St., Chicago; 3720 Fourteenth Ave., Brooklyn
Branch Offices: Philadelphia, Baltimore, Boston, Cleveland, Cincinnati, St. Louis, San Francisco, Los Angeles

Modern Packaging

C. A. BRESKIN, PUBLISHER

A. Q. MAISEL, EDITOR

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MEMBER AUDIT BUREAU OF CIRCULATIONS

NEXT MONTH

During the first 30 days of December, you will still be able to make entry in the All-America Package Competition. Package, display and machinery entries received after December 30 can be neither entered nor returned, so plan your entry now. If you need additional All-America entry blanks, please write, wire or phone Modern Packaging, 122 East 42nd Street, New York, N. Y. Ashland 4-0655. Cover illustration, courtesy of the Phoenix Metal Cap Co.

Streaming out of the hopper they come—640 Chiclets a minute!

Two Chiclets are gently pushed into the glued-end carton at the rate of 320 cartons a minute!

The ends are then glued to complete the packaging of this popular candy-coated gum.

320 CARTONS A MINUTE!!

PACKAGED ON SPECIAL ROTARY TYPE REDINGTON MACHINES

WHEN Redington guaranteed a speed of 260 cartons a minute, it seemed like a tremendous advance over the older types of machines turning out only 110 a minute. But within a few days, operation on these *specially designed* Redingtons was speeded up to 320 every sixty seconds—practically *three times* the older units' capacity.

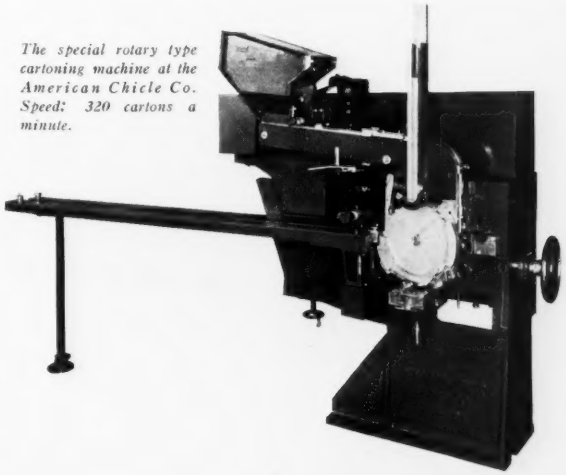
Yet, amazing as this speed is, the machine's efficiency is even more extraordinary. Even at this terrific pace, the cartoner operates *smoothly and quietly.* The Redington engineering staff provided for this with a number of special features, such as worm drive for the carton wheel, roller bearings for the main shaft, and by reducing reciprocating motions to a minimum.

Such exceptional efficiency explains why *more than 150* Redington machines have been built for the American Chicle Co. *since 1906.*

It's proof again that Redingtons can be *designed to do many things well.* We'd like to discuss your problems with you, no matter what speed your product requires or what special packaging problems are involved.

F. B. REDINGTON CO., (*Est. 1897*)

110-112 So. Sangamon St., CHICAGO, ILL.



The special rotary type cartoning machine at the American Chicle Co. Speed: 320 cartons a minute.

REDINGTON PACKAGING MACHINES*

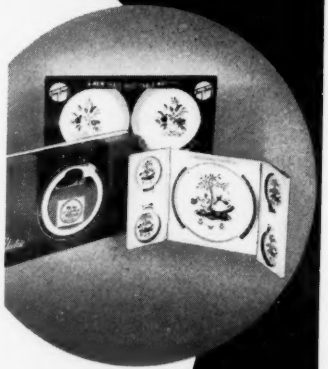
for CARTONING • WRAPPING • SPECIAL PACKAGING

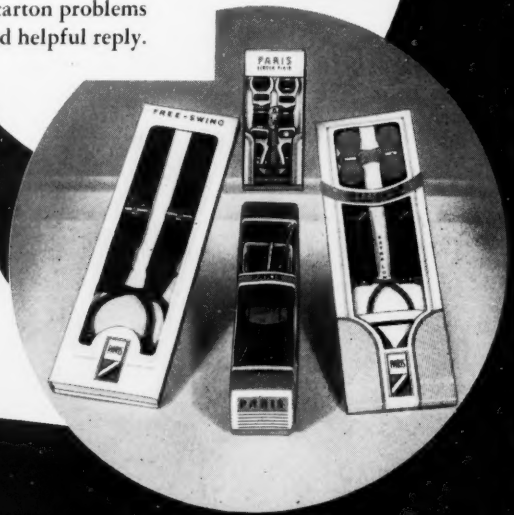
IN THE *Ace* SPOTLIGHT PARADE..

YEAR after year the spotlight parade of Ace craftsmanship shines on many satisfied Ace customers. The few examples shown on this page indicate how we meet the many every day problems of folding carton and counter display designing with sound, intelligent planning within our own creative department. Day after day, just such problems as those shown here are trusted into our hands for development along sensible lines. Into every Ace creation is built the unusual but sound principles of consumer appeal — plus product enhancement, which in every case has resulted in greater return for the few extra dollars invested. Because why?—because creative genius and "horse sense" have met on common ground.

•

A letter outlining your carton problems will receive a prompt and helpful reply.





ACE CARTON CORPORATION
Creators
CICERO ILL

ACE CARTON CORPORATION

CREATORS OF FOLDING PAPER CARTONS, FOLDING DISPLAYS AND DISPLAY CONTAINERS

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METALINE

—275—

Box Stylists - Attention! Here is a fancy paper right off the press, that has everything you want for that new box of yours. Get the new sample book showing a wide range of colors. Here you will find the right color for any occasion. Sample working sheets in an assortment of colors on request.

HAMPDEN

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Changing styles—changing conditions—technical improvements—a hundred such factors affect the business of any manufacturer whose products must be merchandised in containers. Chemical action from within—oxidation from without are problems of major importance. So are breakage and leakage. So also are labelling and design of container.

The great new Crown Can plant in Philadelphia is the last word in modern metal container manufactories. Equipped to solve modern problems, it is also strategically located so as to give you full advantage of distribution differentials.

CROWN CAN COMPANY · PHILADELPHIA, PA.

Division of Crown Cork and Seal Co.

BALTIMORE ST. LOUIS HOUSTON MADISON

CROWN CAN

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YOU GAIN WITH SIMPLEX BOXES

SAVE TIME — With boxes that are quickly erected!

SAVE STORAGE SPACE — They come to you in the flat!

SAVE IN INVESTMENT — They require no equipment to erect!

SAVE YOUR PRODUCT FROM DAMAGE — SIMPLEX BOXES are extra strong and rigid!

SIMPLEX BOXES are ideal for foods, textiles, shoes, clothing, toys, hardware, cosmetics, confectionery and specialties. Leading manufacturers in each of these lines choose—above all others—the protective, time-saving, space-saving, attractive, and inexpensive SIMPLEX BOXES.

There's a style and size exactly suited for your purpose. A SIMPLEX licensee in your area will bring you all these advantages at low delivery costs. Write today for samples and full data.

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EASY TO ERECT

A simple bend

An easy turn

Click! It locks into place!

READY FOR USE

WHATEVER YOUR PRODUCT . . . whatever your problems, a suitable one or two piece SIMPLEX box is made to meet your requirements. That is why leading firms in the textile, toy, food, and almost every other industry choose — above all others — SIMPLEX BOXES.

Write for full information.

SIMPLEX PAPER BOX CORPORATION

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Made Under License In All Parts Of The U. S. A. And Canada

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STAND OUT LIKE JEWELS
IN A WORLD OF PACKAGES!
DRESS UP your package—for faster sales—in a KIMBLE VIAL!
There's a Kimble Vial for your specific needs—or we'll design one for you! Our nearest Branch Office is at your service.
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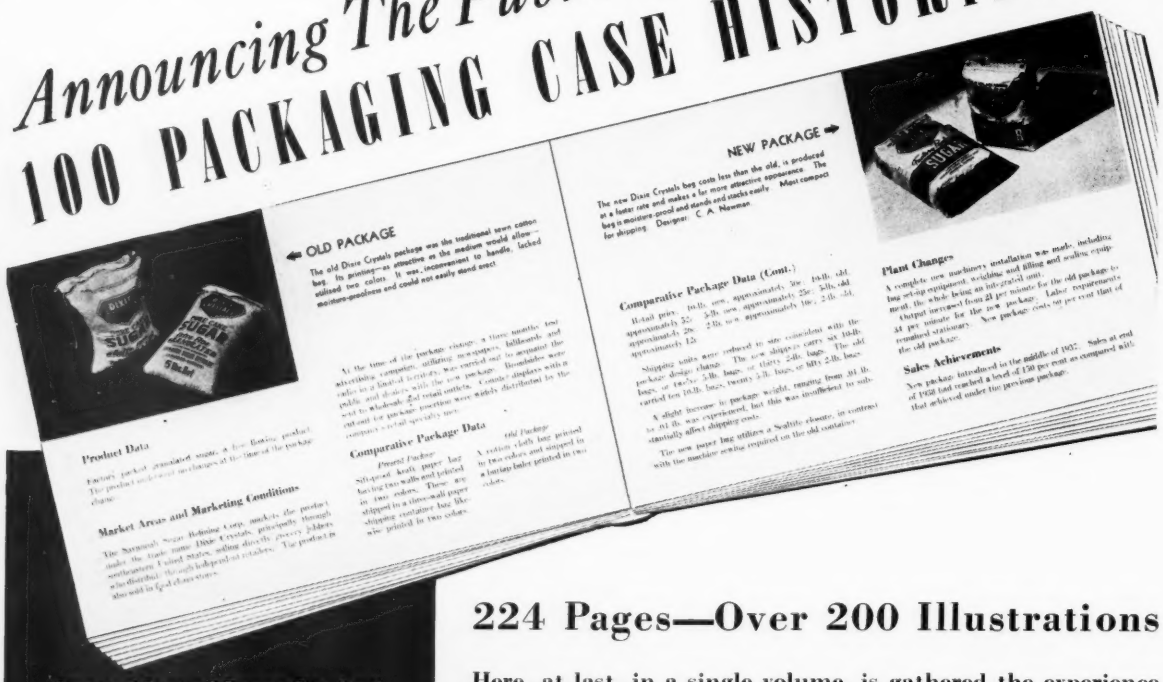
Announcing The Publication of 100 PACKAGING CASE HISTORIES



224 Pages—Over 200 Illustrations

Here, at last, in a single volume, is gathered the experience of 100 leading package using companies in redesigning 100 of the best known and most significantly improved packages. No mere series of "before and after" packages. No mere surface reporting. But a deep and thorough-going analysis of the reasons that led to every change, of the manner in which the change was accomplished, of the change itself, and of its effect on costs and on sales.

Packagers and designers have long needed so thoroughly a documented study to serve as a guide to their own efforts, and only the thoroughly experienced staff of Modern Packaging could possibly have compiled this book.

Now, in a case-bound, beautifully printed, profusely illustrated, 224-page volume, this hitherto totally unobtainable data is presented in clear, concise, case history form with actual figures, "before and after" pictures, accurate descriptions.

No packager—no package supplier—no package designer—no one connected in any way with package planning can afford to be without the information this volume now makes available. It will show you all the pitfalls you must avoid, show you all the methods which prove most successful in planning outstanding package changes and in capitalizing upon these.

"100 Packaging Case Histories" is being published in a limited edition, specially priced at only $2.50 per copy. Sample pages and full information are available upon request. Write now to Modern Packaging to reserve your copy.

Partial List of Cases Studied

Dr. West's Tooth Brush — Weco Products Co. Inc.
Vitalis Hair Dressing — Bristol-Myers Co.
Green Giant Peas — Leo Burnett Co.
Carter's Ink — The Carter's Ink Co.
Palmolive Shave Cream—Colgate-Palmolive-Peet Co.
Duff's Cake Mixes — P. Duff & Sons, Inc.
Eagle Pencils — Eagle Pencil Co., Inc.
Bromo-Seltzer — Emerson Drug Co.
Ex-Lax — Ex-Lax, Inc.
Fitch's Ideal Hair Tonic—The F. W. Fitch Co.
Gulden's Mustard — Charles Gulden, Inc.
Higgins' Ink—Charles M. Higgins & Co. Inc.
Hoffman Club Soda—Hoffman Beverage Co.
Johnson's Wax — S. C. Johnson & Son, Inc.
All-Bran Cereal — Kellogg Co.
Listerine Tooth Paste Lambert Pharmacal Co.
Lifebuoy Soap — Lever Bros. Co.
Flavoring Extracts — McCormick & Co., Inc.
Murine — The Murine Co., Inc.
Necco Chocolate Peppermints — New England Confectionery Co.
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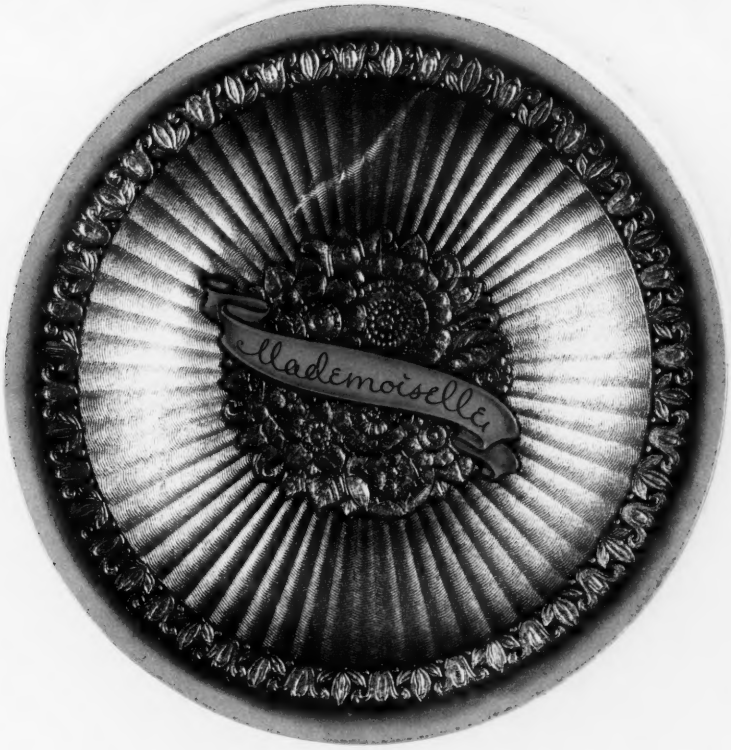
Shefford Cheese — Shefford Cheese Corp.
Tennis Balls — A. G. Spalding & Bros., Inc.
Sterling Salt — International Salt Co., Inc.
Swift's Premium Bacon — Swift & Co.
Del Monte Peas and Peaches — California Packing Corp.
2-in-1 Shoe Polish — Hecker Products Corp.
Minute Tapioca — Minute Tapioca Co.
Easter Egg Colors — Paas Dye Co.
Rem — Maryland Pharmaceutical Co.

MODERN PACKAGING

BRESKIN PUBLISHING CORPORATION

CHANIN BUILDING 122 East 42nd Street, New York, N. Y.



We are pleased to present a new creation in box-top designing wherein the modern conception is harmoniously blended with mellowness of time. Rich, hand-tooled treatment combined with delicate shadings of silver, gold and brown strike a note that is different, while the soft touch of color constitutes the personal appeal to feminine interest. We hope this Cameo Creation may be of some help to you when planning your next package, exemplifying our ability as Designers, Craftsmen.

CAMEO

DIE AND LABEL COMPANY

Designers and Craftsmen

154 West 14th Street • WAtkins 9-8484 • New York, N. Y.

"Freshness Guaranteed" in Triple Guard Pack

Children and grown-ups alike enjoy the refreshing coolness and freshness of flavor of this gum. ¶Each package is carefully sealed in printed SYLVANIA* cellophane having a minimum of expansion and contraction. These packages are colorful, sparkling and decorative to attract the buyer. The freshness and flavor of the gum is sealed in. *Name of printer furnished upon request.*

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*"SYLVANIA" IS A REGISTERED TRADE MARK FOR CELLULOSE PRODUCTS MANUFACTURED BY SYLVANIA INDUSTRIAL CORPORATION

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THE FINEST WORD IN PACKAGING

Dusting powder—copper tubing—

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Vitamin tablets—rifle cartridges.

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Certainly

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No one type package will do for all.

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For these

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And hundreds of other commonplace and luxury products

•

We are constantly designing and manufacturing

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WARNERCRAFT Folding and Set-up boxes,

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Counter cartons and displays.

•

Inquiries invited. Object—Mutual Success.

THE WARNER BROTHERS COMPANY

BRIDGEPORT CONNECTICUT

200 Madison Ave., New York AShland 4-1195

DESIGN

We maintain full time designers skilled in the art of creating and developing modern packages and displays.

KEEP YOUR PRODUCTS

In the Sales Spotlight

WITH BAKELITE MOLDED PACKAGES

(LEFT) Convenient "re-usable" package of Bakelite Molded for Autopoint Gift Set. Molder: Auburn Button Works. (CENTER) Novel "8-Ball" package for Pioneer Belts formed from Bakelite Molded, A. L. Hyde, molder. (RIGHT) Gay red and black Holiday Package for Pioneer Belts. Molded from Bakelite material by A. L. Hyde.

YOU CAN give eye-catching, sales-winning display value to nearly any retail item by packaging it in Bakelite Molded containers. Lustrous, colorful and adapted to production in practically any original design, these packages offer endless opportunities for dramatic styling. For example, consider the three packages pictured.

Autopoint pencils and penknives are combined into a colorful, attractive gift set by packaging in handsome containers of green and black Bakelite Molded. Pioneer Belts gain striking display value, as well as added merchandise value, from a novel "8-Ball" container of black Bakelite Molded and an embossed decorative package of red and black Bakelite Molded. All are designed for "life-time" re-use in the home.

Investigate the powerful merchandising possibilities of Bakelite Molded packages for *your* products. These modern containers may be obtained in stock or special designs... in any color of the rainbow... and in gem-like transparent, translucent or opaque effects.

Mail the coupon *today* for your copy of our detailed Handbook 8C, "A Guide to Modern Packaging".

BAKELITE CORPORATION, 247 PARK AVE., NEW YORK

BAKELITE

The names of all trade marks shown above distinguish materials manufactured by Bakelite Corporation. Under the symbol B in the circle, registered as to form, or unlimited quantity, it symbolizes the infinite number of present and future uses of Bakelite Corporation's products.

PLASTICS HEADQUARTERS

Bakelite Corporation, 247 Park Ave., New York
Please send complimentary copy of your handbook 8C, "A Guide to Modern Packaging with Bakelite Materials."

NAME.....

COMPANY.....

ADDRESS.....

COMPLETE RESPONSIBILITY

● Perhaps a life hangs in the balance. Upon the deft skill of the surgeon—everything depends. Trained assistants capably do their part but the surgeon, despite great odds, calmly accepts *Complete Responsibility* for the patient's well-being.

● Vital to the success and efficient operation of your company is a source of supply which understands, has the facilities, and thoroughly appreciates the importance of your container and closure problems.

Vital, too, is *dependable* service, close cooperation and a willingness to accept *Complete Responsibility* for your packaging requirements.

Let Anchor Hocking assist you in selecting the proper glass container and closure. Let our packaging engineers help you in the proper handling, preparation, packing and sealing of your products.

Our facilities for research, for practical laboratory tests, for quick deliveries are yours without the slightest obligation. We know glass and know, further, that glass can do the packaging job better, quicker and more profitably.

Write, wire or phone Anchor Hocking. Save time, worry, endless detail and money by selecting Anchor Hocking as your source of supply for all containers and closures.

ANCHOR HOCKING PRODUCTS AND SERVICES

P & P WARE
FOOD CONTAINERS
LIQUOR & WINE BOTTLES
BEER AND BEVERAGE BOTTLES
THIN-BLOWN PACKERS' TUMBLERS
GLASS PREMIUM WARE
TABLEWARE
HOTEL, BAR & RESTAURANT WARE
GLASS FOR INDUSTRIAL USES
CLOSURES:
metal and molded; airtight and vacuum; friction, screw and lug types
AMERSEAL NOZZLES—
for cans containing liquids
SEALING MACHINES—
hand, foot and semi-automatic types
PROCESSING EQUIPMENT—
for processing glass-packed products
RESEARCH & ENGINEERING STAFF
EXPERIMENTAL & TESTING LABORATORIES
DESIGN SERVICE

ANCHOR HOCKING GLASS CORPORATION
Lancaster, Ohio
Closure Division: ANCHOR CAP & CLOSURE CORPORATION,
Long Island City, N. Y. and Toronto, Canada

ANCHOR HOCKING GLASS CAPS
-an unbeatable combination

● The new line of extract ovals shown, sealed with Anchor Molded Caps, is available in ¾, 1, 2, 4 and 8 oz. capacities. Samples on request.

DEVELOP YOUR SALES IN *LATIN-AMERICA* THROUGH PAN AMERICAN DIRECTORY

Screaming headlines tell unmistakably that Europe is completely cut off from Latin America. American factories can now enjoy a sellers' market.

John H. White, N. Y. Times correspondent, from Buenos Aires, Argentina, wires: "South America's reaction to the European conflict has been almost exclusively commercial. War means immediate wealth for virtually all South American countries by creating a heavy demand for their raw materials."

Let's look at the record. Exports of finished manufactures during the last World War speak volumes. And it will happen again! Viz.:

1913	$776,000,000	1916	$1,998,000,000
1914	725,000,000	1917	2,942,000,000
1915	807,000,000	1918	2,185,000,000

The law of demand and supply knows no mercy. In the last World War Cuba got 22 cents a lb. for her sugar, against 3.24 cents per lb. before the war.

In the paper field alone, the average exports from 1910–1914 were about $10,550,000 annually. From 1915–1919 the paper exports averaged fully $34,000,000 annually. Take toys, sporting goods and athletic goods, before the war the average was $1,400,000. Between 1915–1919 the average annual exports were $3,200,000.

DIRECTORIO PAN AMERICANO (printed in Spanish only) offers you direct contact with 3500 Key Buyers in a vast market covering 22 countries:

Argentina	Costa Rica	Honduras	Peru
Bolivia	Cuba	Mexico	Philippine Islands
Brazil	Dominican Republic	Netherlands West Indies	Puerto Rico
Chile	Ecuador	Nicaragua	El Salvador
Colombia	Guatemala	Panama	Uruguay
		Paraguay	Venezuela

A total population of about 150,000,000. A total area nearly triple that of the United States. Includes hundreds of cities where responsible, financially responsible agents, wholesalers, distributors, jobbers, industrial plants, retailers, government purchasing departments, public utilities, etc., etc., all want your goods—ESPECIALLY NOW WITH EUROPEAN SOURCES CUT OFF!

THIS IS THE TIME TO GET YOUR SALES MESSAGE ACROSS TO A FRIENDLY, RECEPTIVE MARKET!

BUYERS' GUIDE TO UNITED STATES MERCHANDISE

Directorio Pan Americano is a complete and accurately compiled Buyers' Guide. The source book of U. S. made goods. It lists American manufacturers in triple classifications, viz.: by alphabet, by product or products, by trademark. Directorio Pan Americano concentrates on paper, paper specialties, stationery, greeting cards, paper boxes, bags, wrappings, ties, labels, seals, tags, printing equipment and accessories, novelties, office accessories, and strictly related fields.

WORKS FOR YOU 365 DAYS PER YEAR

Directorio Pan Americano is not a magazine, to be read once and discarded. It is a hard-covered Directory. Built for permanence. Issued to Key Buyers once a year. Designed for quick and easy reference. It directs 3500 buyers' purchases into the United States.

CONTACT THIS BIG, PROFITABLE MARKET

Desirable space still available for the 1940 Directory to be mailed in December 1939. Cash in on this $500,000,000 export market through Directorio Pan Americano. There is not too much time left before forms close. Write now for further information.

Directorio Pan Americano
250—5th Ave.,
New York, N. Y.

Kindly send rate card and full information regarding your 1940 Directory, without any obligation on my part.

Firm name .....

Street address & city .....

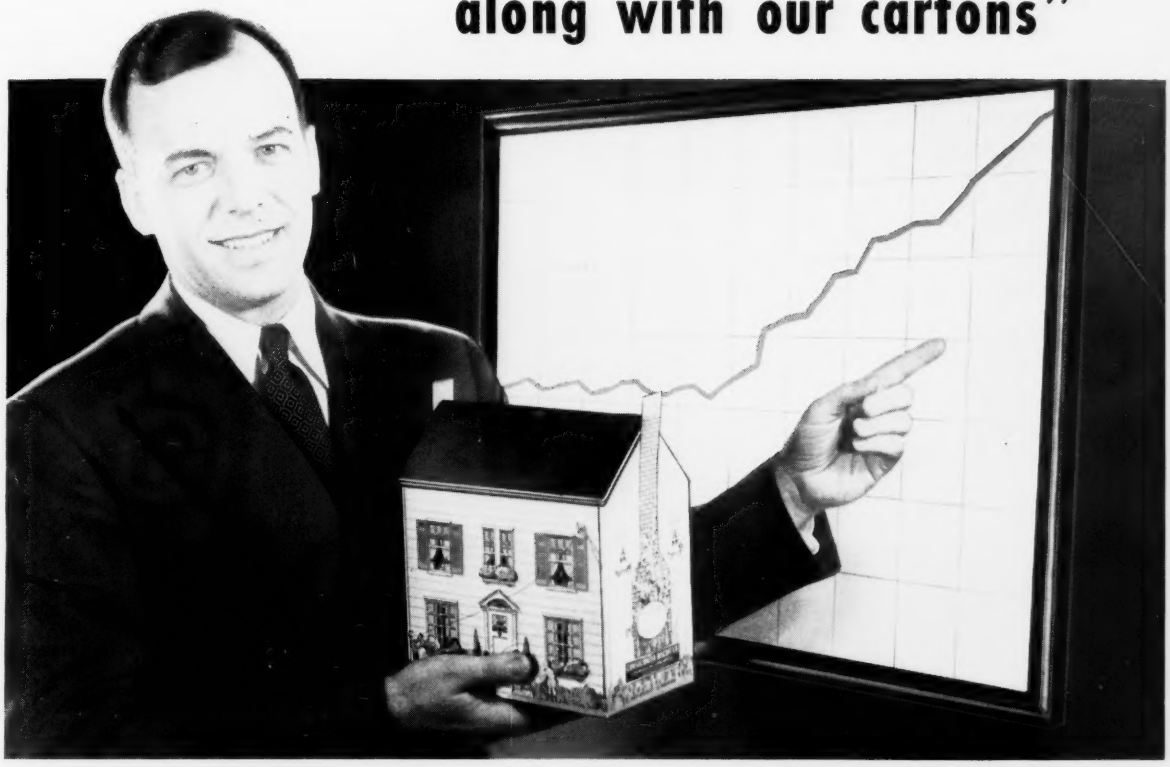
For the attention of .....

DIRECTORIO PAN AMERICANO

250 Fifth Avenue,

New York, N. Y.

"They re-styled our SALES CURVE along with our cartons"

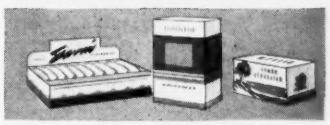


READ HOW GARDNER-RICHARDSON HAS HELPED INCREASE SALES FOR MANY PACKAGED GOODS MERCHANDISERS by re-styling cartons for greater utility

- *A cookie baker's carton was re-styled to resemble a doll house—and up went sales.*
- *A handy pouring spout, added to a salt carton, made more women reach for this brand.*
- *A cellulose window in a popcorn carton sent sales zooming.*
- *A handy wall dispenser carton increased sales in a drug store line.*
- *A counter display carton helped put a shoe polish out in front.*
- *A coupon on a carton top made a premium offer more successful.*

● How can Gardner-Richardson help make more hands reach for *your* carton? Perhaps there is space on your carton that could be used to better advantage. Perhaps re-styling can make your cartons more practical, more usable, give them greater sales appeal on shelf or counter. Whatever your carton problem, Gardner-Richardson's staff of carton specialists will give you the benefit of their experience to help solve it—without obligation. Write today, sending full details and sample of present carton.

SPECIAL ENGINEERED-PRECISION CARTON BOARDS



LITHWITE . . . *A smoother, whiter, economical boxboard that prints with extraordinary color brilliance, gives cartons greater display value.*

GREASENE . . . *A boxboard for the economical protection of products with grease or oil content.*

HYDRO-TITE . . . *A special boxboard for products that need moisture-proof protection.*

Also all standard grades of folding boxboard.

Write today for samples of any or all of these Gardner-Richardson engineered-precision carton boards. Make your own tests. Prove to yourself how they can save money, make money for you. No obligation.

MAKING SALES WITH PAPER. Gardner-Richardson carton specialists are practical, sales-minded men. With ingenious minds and skilled hands, they create cartons that stop the eye, coax the hand — ring up more sales.

ENGINEERED-PRECISION CARTONS. In the two big Gardner-Richardson plants, technicians and engineers check and test every step of the way — from pulp to finished product. Result—brighter, fresher cartons with greater shelf appeal.

GARDNER-RICHARDSON ENGINEERED PRECISION FROM PULP TO FINISHED PRODUCT

THIS SYMBOL *is your assurance of greater uniformity, higher quality, better appearance, better product protection—profit and satisfaction.*

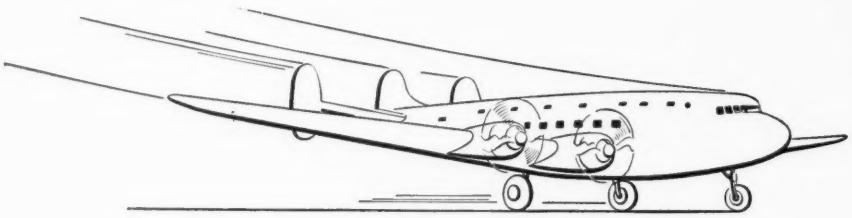
The GARDNER-RICHARDSON Co.

MIDDLETOWN, OHIO

Manufacturers of Folding Cartons and Boxboard

Sales Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT

Make a 3-POINT landing!



Skilled pilots land their planes safely on "three points." In choosing closures, it is equally important to hit three points. Get satisfactory *application*. Get sealing *security*. Get easy *removal*. Alseco Seals give you *all three*.

APPLICATION—Alseco Sealing Machines operate at low cost, perform with faultless precision, give great flexibility in output and sizes. Often cut labor costs.

SECURITY—High sealing efficiency is assured by the Alseco method, a seal applied with uniform top pressure and tailored to fit each container. Leakage and evaporation are eliminated.

REMOVAL—Alseco Seals are designed for easy opening and reclosing by users of your product. No tools. No trouble. No rust. No breakage. Every seal builds good will.

TAILOR-MADE

Alseco

SEALS

FOR SAMPLES AND PRICES, WRITE ALUMINUM SEAL COMPANY, 1345 3RD AVE., NEW KENSINGTON, PENNA.

Trade Mark Reg. U. S. Pat. Off.

AT YOUR SERVICE: 25 YEARS OF EXPERIENCE BUILDING QUALITY SEALS AND SEALING MACHINES

Here's *Unfailing* TRANSPARENT PROTECTION for all fine merchandise

Pliofilm packaging now used by leading blanket manufacturers provides housewives with a permanent dust- and mothproof storage bag—a helpful sales feature.

ARE retailers reporting too many failures in your transparent packaging? Are too many packages splitting, cracking or tearing—in transit or on the counter? The answer to that is—*wrap in Pliofilm.**

Pliofilm, you know, is Goodyear's new transparent, synthetic, moistureproof sheeting characterized by unusual toughness. Its high resistance to tears and ruptures gives fine merchandise unfailing protection against handling and counter wear—keeps it fresh and clean and priceworthy until sold.

And beyond this, Pliofilm has a crystal clarity, a brilliant sparkle that adds rich eye-buy appeal to any quality product. It lends itself to smooth, wrinkleless wrapping of irregular shaped articles from shoes to silverware—to all manner of bags, envelopes and other containers, trimly sealed by heat or adhesives.

If you have a difficult packaging problem, we'll be glad to demonstrate how you can do it better with Pliofilm. For a test wrap write: Pliofilm Sales Department, Goodyear, Akron, Ohio.

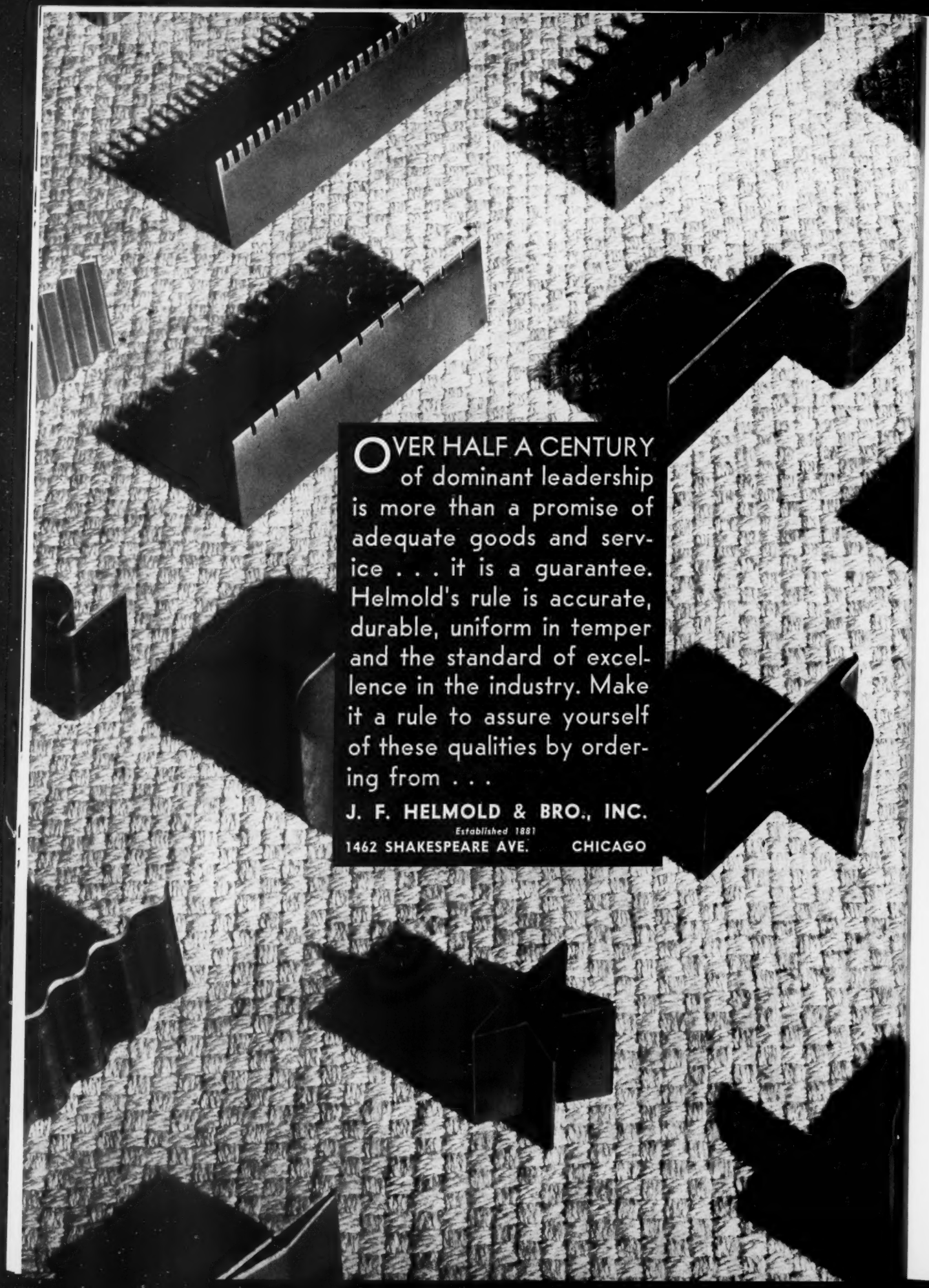
A Centennial Product of The Greatest Name in Rubber

Highly resistant to puncturing, tearing and splitting.

*Trade-Mark of The Goodyear Tire & Rubber Company

THE BEST THINGS COME SEALED IN

GOODYEAR Pliofilm


OVER HALF A CENTURY
of dominant leadership is more than a promise of adequate goods and service . . . it is a guarantee. Helmold's rule is accurate, durable, uniform in temper and the standard of excellence in the industry. Make it a rule to assure yourself of these qualities by ordering from . . .
J. F. HELMOLD & BRO., INC.
Established 1881
1462 SHAKESPEARE AVE. CHICAGO

COLOR

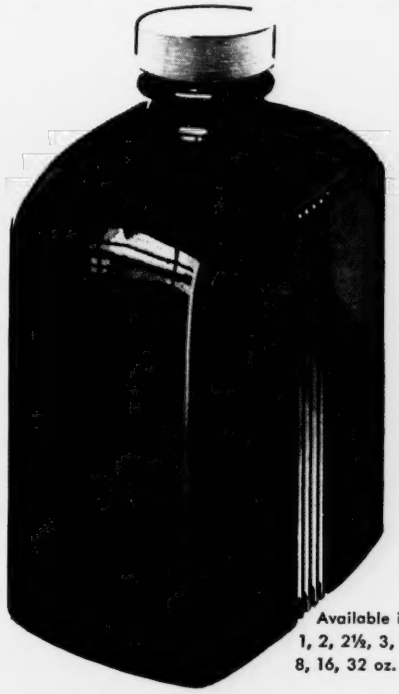
STOPS THE EYE . . . . STARTS THE SALE

Make your product easy to see, easy to identify, and you make it easier to sell. USE color—distinctive Maryland BLUE. BLUE makes your product look smarter, more modern . . . makes it stand out . . . distinguishes it from competing brands. BLUE attracts the customer to buy—advertises your product in the home, helping to insure repeat sales. And because BLUE is synonymous with character, integrity, high rank, prestige, Maryland BLUE Bottles make your product look as good as you know it to be.

THE CABINET SQUARE — NEW SPACE SAVING DESIGN

Slides in Like a Book — Doubles Capacity of Medicine Cabinet

THE SQUAT JAR
Available in ⅛, 1, 2, 3, 4, 8 and 18 oz. sizes.



Available in 1, 2, 2½, 3, 4, 6, 8, 16, 32 oz. sizes.

THE CHESAPEAKE OVAL
Available in 4, 6, 8, 12, 16 and 32 oz. sizes.

PACK TO ATTRACT IN

Maryland Blue Bottles

MARYLAND GLASS CORPORATION, BALTIMORE, MD. . . . New York: 270 Broadway . . . Chicago: Berman Bros., 1501 S. Laflin Street . . . St. Louis: Carl Floto, 908 Clark Avenue . . . Memphis: William T. Porter, 806 Dermon Building . . . San Francisco: Owens-Illinois Pacific Coast Company.

ALSO AVAILABLE IN CLEAR GLASS—WRITE FOR SAMPLES

What's the Answer?

PUT IT IN CANS!

Mighty sound advice from your claim adjuster, a practical man who realizes the importance of safe packaging—that's why he suggests cans.

Day in and day out he sees the advantages of cans—their sturdiness that prevents breakage—their lighter weight which means lower shipping costs and easier handling.

What he may not realize is that in addition, cans offer greater display value and wider salability due to consumer convenience in usage.

Consider these factors—then judge for yourself whether your product wouldn't be better packaged in a quality can—made by Continental!

C

There is hardly a product that wouldn't be more acceptable packaged in a can—although "knowing how" may sometimes be a matter of laboratory research or package design.

Continental offers complete facilities for determining your needs. Call upon us anytime.

CONTINENTAL CAN COMPANY

NEW YORK · CHICAGO · SAN FRANCISCO · MONTREAL · TORONTO · HAVANA

Design YOUR PACKAGES INSIDE OUT

It's the outside of your package that should help to attract attention and create initial sales — but it's what the customer finds *inside* the package that determines whether he will buy it again. Volume sales are repeat sales, and they can't be built with a package that permits leakage, breakage, rancidity, mold, sogginess or any other defect that might mar the original quality of the product within. So design the inside of your package first, for its inner protection can have just as much effect on sales volume as can its outer appearance.

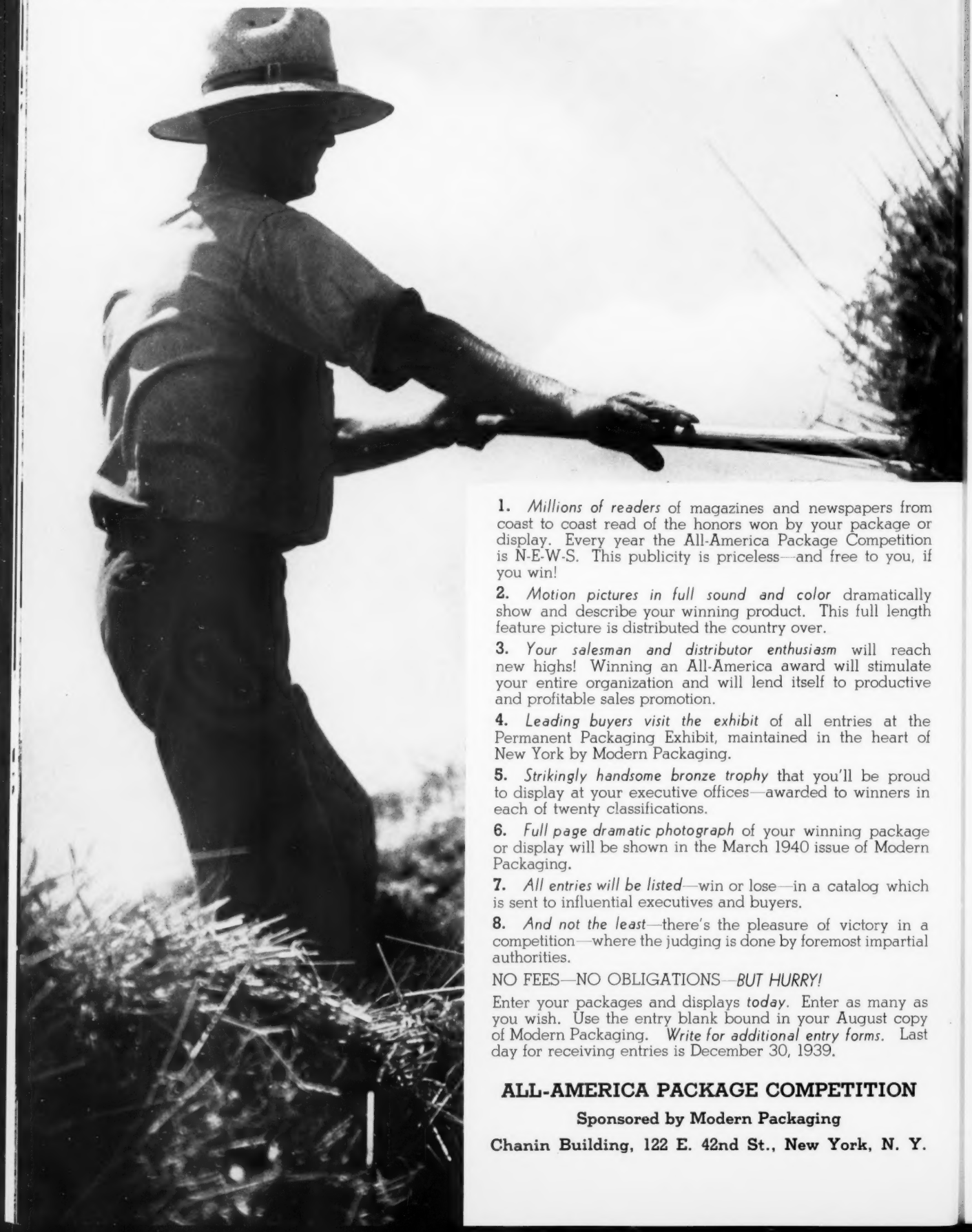
Although many Riegel Papers are used for dressing up a package, the majority of our 130 standard lines have been developed for product protection. Among their almost endless variety you should find one that will exactly fit your individual requirements. Write us today.

Riegel Papers

RIEGEL PAPER CORPORATION • 342 MADISON AVE • NEW YORK

REAP 8 RICH HARVESTS

by entering and winning the 1939 ALL-AMERICA PACKAGE COMPETITION



1. *Millions of readers* of magazines and newspapers from coast to coast read of the honors won by your package or display. Every year the All-America Package Competition is N-E-W-S. This publicity is priceless—and free to you, if you win!

2. *Motion pictures in full sound and color* dramatically show and describe your winning product. This full length feature picture is distributed the country over.

3. *Your salesman and distributor enthusiasm* will reach new highs! Winning an All-America award will stimulate your entire organization and will lend itself to productive and profitable sales promotion.

4. *Leading buyers visit the exhibit* of all entries at the Permanent Packaging Exhibit, maintained in the heart of New York by Modern Packaging.

5. *Strikingly handsome bronze trophy* that you'll be proud to display at your executive offices—awarded to winners in each of twenty classifications.

6. *Full page dramatic photograph* of your winning package or display will be shown in the March 1940 issue of Modern Packaging.

7. *All entries will be listed*—win or lose—in a catalog which is sent to influential executives and buyers.

8. *And not the least*—there's the pleasure of victory in a competition—where the judging is done by foremost impartial authorities.

NO FEES—NO OBLIGATIONS—*BUT HURRY!*

Enter your packages and displays *today*. Enter as many as you wish. Use the entry blank bound in your August copy of Modern Packaging. *Write for additional entry forms.* Last day for receiving entries is December 30, 1939.

ALL-AMERICA PACKAGE COMPETITION

Sponsored by Modern Packaging

Chanin Building, 122 E. 42nd St., New York, N. Y.

STRAIGHT FACTS.. WITHOUT DISTORTION

PACKAGING *minus* DOUBT!

You may twist your reflection in these trick mirrors when you're on a lark... but you've got to get down to *straight thinking* in PACKAGING for Sales. • Have you given a thought to "NATIONAL" Container Service? Here stands a veritable storehouse of ideas for Package design and display! • You'll find "NATIONAL" enthusiastic about your problem, experienced in practical application... alert and capable in spotting your line for active selling.

***Get* STRAIGHT *on* PACKAGING *Call* "NATIONAL!"**

NATIONAL CAN CORPORATION

SUBSIDIARY OF McKEESPORT TIN PLATE CORPORATION

EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK CITY

Sales Offices and Plants • NEW YORK CITY • BALTIMORE • MASPETH, N. Y. • CHICAGO • BOSTON • DETROIT • HAMILTON, OHIO

This Shipment must have come by water ... under water!

1 ***When a shipment of Celluloid*** in rolls (each roll wrapped in Lumarith Protectoid) was received at a large industrial plant in Buffalo, N. Y., the cartons were all broken and sopping wet. The transportation company was asked for an explanation.

2 ***"The Transportation Company offered*** to make good" . . . and asked to have the cartons opened in the presence of their inspector.

3 ***But . . "Lumarith Protectoid had protected*** each and every roll from any damage whatsoever. We know of no other transparent packaging material which would have stood this test." There, in the customer's own words, is an example of the kind of punishment Lumarith Protectoid takes to keep packages safe and attractive. We don't recommend dropping any package in a lake—but we do know that Lumarith Protectoid is always waterproof. It does not discolor or dry out with age. It is not affected by extremes of temperature or humidity. It is odorless, tasteless, and non-inflammable. It cements easily and permanently. It has a perfect printing surface. *It does not shrink or wrinkle.* Packaging Division, Celluloid Corporation, 10 E. 40th Street, New York City. Established 1872. Sole Producer of Celluloid and Lumarith (Trademarks Reg. U.S. Pat. Off.)

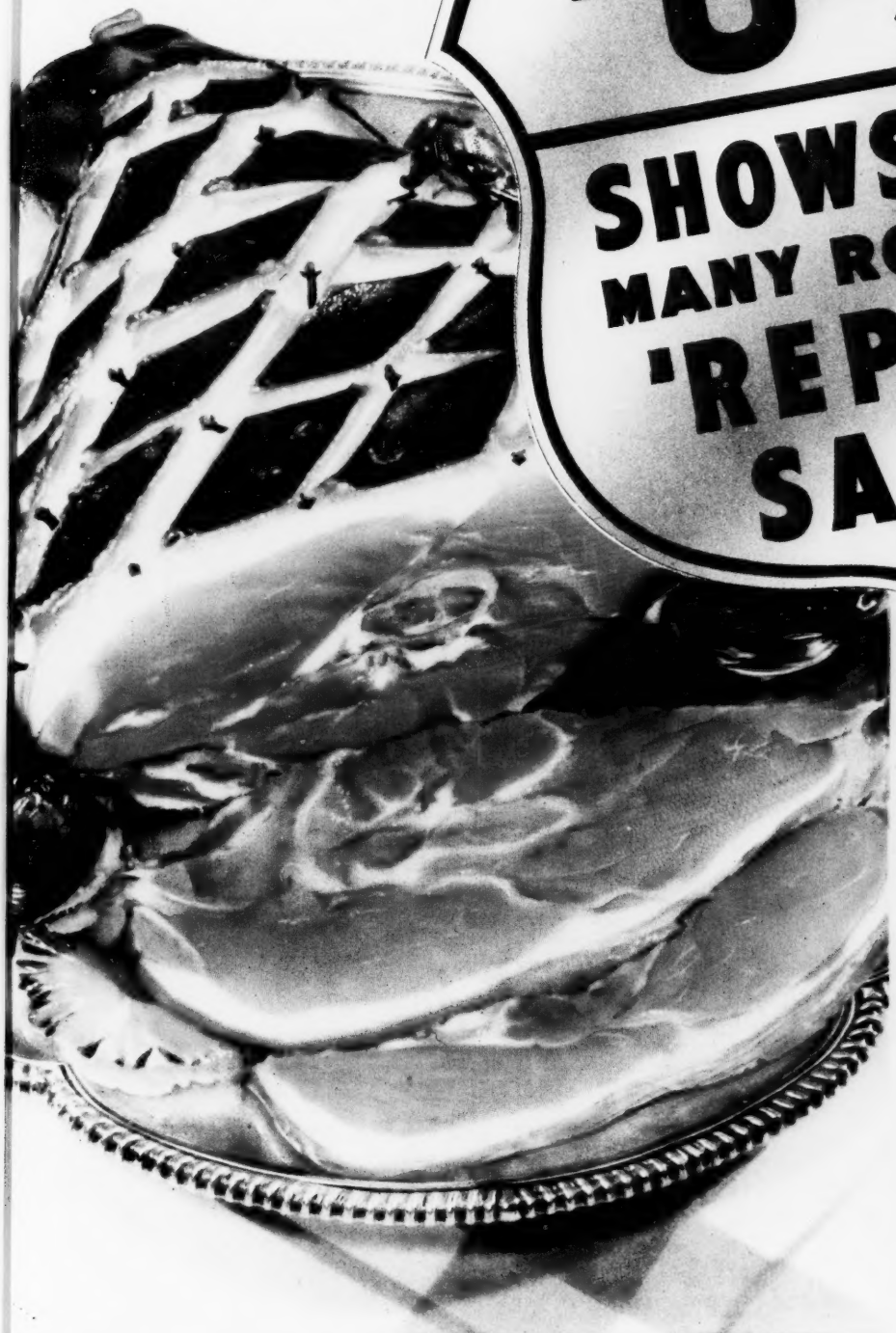
LUMARITH PROTECTOID

REG. U.S. PAT. OFF.

When you think of plastics, think of headquarters —"the Grand-daddy of them all" . . . and . . .

Get in touch with CELLULOID *also Headquarters for* PLASTICS

"U-S" SHOWS YOU MANY ROADS TO 'REPEAT SALES'



*Reproduced from the actual plates used to make the booklet.

The most effective ways of inducing consumers to buy again are via the road of color.

For instance: Here's a page from a recipe booklet* that sells more meat by picturizing valuable mealtime suggestions.

Colorful recipe booklets are a sure road to repeat sales.

"U-S" knows <u>that</u> road—and many others . . . labels and cartons that say "Look at me!" . . . window displays that say "Come in and buy!" . . . posters that say "Remember!" . . .

First step on many roads to repeat sales is . . .

Call "U-S".

The UNITED STATES PRINTING & LITHOGRAPH COMPANY

AND DIVISIONS

HOME OFFICE: 328 BEECH ST., CINCINNATI, OHIO.

Production Plants at: BROOKLYN • CHICAGO • CINCINNATI • ERIE, PA. • BALTIMORE

AMERICAN LITHOGRAPHIC DIVISION
ATLANTIC LITHOGRAPHIC & PRINTING DIVISION
DONALDSON LITHOGRAPHING DIVISION
ERIE LITHOGRAPHING & PRINTING DIVISION
PALMER ADVERTISING SERVICE DIVISION
W. F. POWERS DIVISION
THEO. A. SCHMIDT LITHOGRAPHING DIVISION

Housewives welcome end of *d-r-i-p!*

Ideal premium makes cream,
dressings, sauces, syrups
Easier to use
Easier to sell!

Redouble demand for your cream, milk, honey, syrups, sauces, dressings and other products with handsome Federal Servers!

They're proven, successful builders of sales and *resales!*

Housewives everywhere welcome them as premiums or regular containers. Three or four are hardly enough for a home. The tops may be had with, or without, bottles—or made specially to fit your present container. Costs are 'way down. Investigate today!

FEDERAL TOOL CORPORATION

400 NORTH LEAVITT STREET . . . . . CHICAGO

Announcing

LIBRARY BINDERS

For

MODERN PACKAGING

We are offering for the first time these handsome binders which hold 12 issues of MODERN PACKAGING . . . and assemble them as your up-to-date reference library on a vital subject.

Sturdily covered with brown simulated leather and gold stamped, they will protect your copies of MODERN PACKAGING—and keep them orderly and pleasing to the eye. Copies of any month's issue may very easily be removed and replaced at will by a handy loose leaf arrangement.

At $1.75 postpaid they are an excellent value. Just mail this coupon, stating the quantity you wish to order.

MODERN PACKAGING
Chanin Bldg., 122 E. 42nd St., New York

I wish to order..... (one or more) library bindings, which will hold 12 issues of MODERN PACKAGING. I enclose my remittance of $1.75 each.

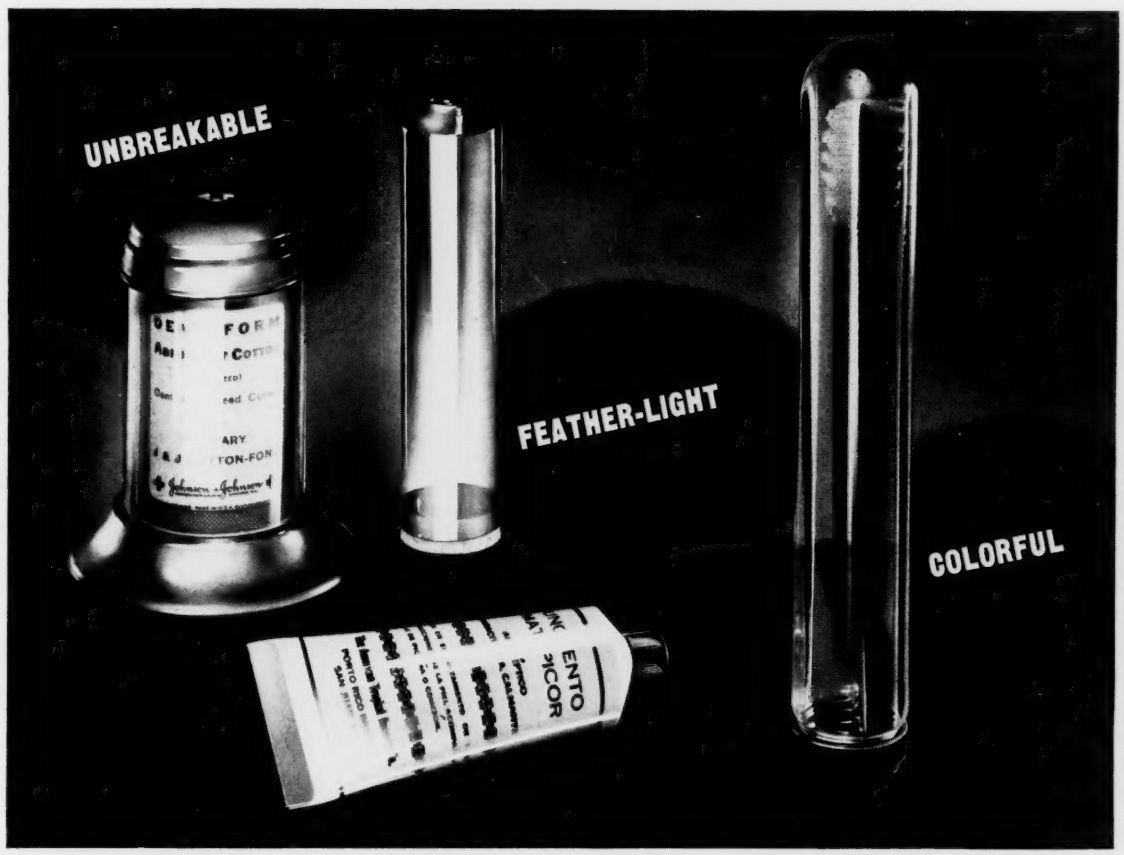
Name .....

Company .....

Address .....

City & State .....

DYNAMIC PACKAGING *for a Dynamic Age*



Hygienic TUBES, VIALS, CONTAINERS OF HYCOLOID, NEOCELL, CLEARSITE

Horse and buggy days went out long ago — but so did the Model T! No one can re-package once and for all. It's a dynamic world. Packaging progress is swift. Now it moves into celluplastics. Now you can package in any color, or combination of colors you want. You can insure your product in an unbreakable container, a fifth the weight of glass. You can eliminate separate labels and labelling — imprinted during manufacture. You can show your product through transparent walls, keeping it clean and hygienic.

You can do all this at surprisingly low cost. We'll be glad to show you how, entirely at our expense and without obligation. Samples and full particulars are available. Just write on your letterhead to Dept. C,

HYGIENIC TUBE & CONTAINER CORP. • EXECUTIVE OFFICES AND FACTORY: 50 AVENUE L, NEWARK, N. J.
SALES OFFICE: 626 FIFTH AVENUE, NEW YORK. TEL: CI 6-2425

OUT IN FRONT

Mundet Molded-Top Corks are out in front among modern sealing aids. Here's how you profit from these attractive closures:

Certified cork sealing—We get "first call" on quality, by controlling our sources of cork supply. You get superior sealing for your products.

Durable construction—Our method of fastening cork and flange assures dependable resealing service with full protection to your product. In addition to freshening up the package, the molded top provides convenient finger grip for instant opening.

Trademark Identification—Your trademark embossed in striking colors on the molded top is a constant brand reminder to the user. Mundet Molded-Top Corks are made in standard sizes, in black, or in colors. They are available in the stock design shown above, or made to special order. Because we make every type of cork closure, we are able to advise impartially. If you have a closure problem, let us suggest its most economical solution. Mundet Cork Corporation, 65 S. Eleventh St., Brooklyn, N. Y.

AS IMPORTANT AS THE NAME ON THE LABEL

IS THE CORK CLOSURE THAT GUARDS THE BOTTLE'S CONTENTS

MUNDET MOLDED CLOSURES

Mundet Offices Are Conveniently Located for Quick Service

Atlanta.....339-41 Elizabeth St., N. E.	Detroit.....335 W. Jefferson Ave.	New Orleans.....432 N. Peters St.
Chicago.....2959 N. Paulina St.	Houston.....Commerce and Palmer Sts.	Philadelphia.....2226 Arch St.
Cincinnati.....427 W. 4th St.	Kansas City, Mo.....1428 St. Louis Ave.	San Francisco.....440 Brannan St.
Cleveland.....Britten Terminal, Inc.	Los Angeles.....2051 E. 37th St.	— also J. C. Millett Co.
Dallas.....505 Southland Annex	Louisville.....Kentucky Bottlers Supply Co.	St. Louis.....506 S. Main St.
Denver.....The Stone-Hall Co.	Memphis.....Memphis Bonded Warehouse	Seattle.....Succop-Tighe & Sons

In Canada: Mundet Cork & Insulation, Ltd., 35 Booth Ave., Toronto

A PRODUCT *that buyers want to touch*

BOSTITCHED TO AN ADVERTISING MESSAGE

Enlarged View of Bostitching

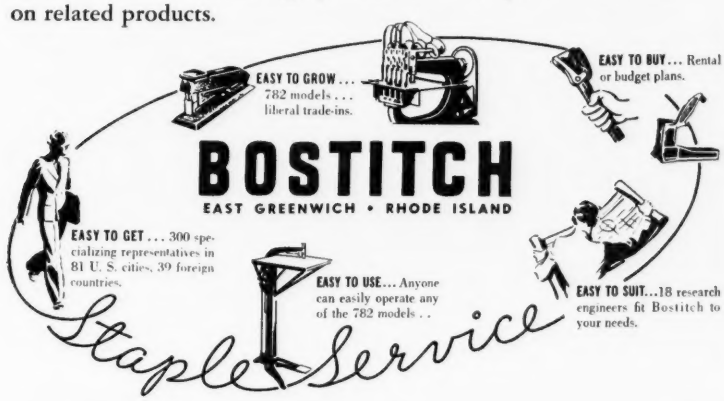
Back View

Wider than many imagine is the scope of possibilities for profitably Bostitching (stapling) products to cards. Here is a simple-looking job, which represents the economical and effective solution to a double retail display problem.

These heel cushions had to be so packed that customers could *feel* how soft they are, how pleasant they would be to wear. Obviously no cellophane or other envelope could meet the requirement of accessibility to touch.

At the same time, it was vital to tell foot-conscious women of all the other "footaids" made by the same manufacturer. Each buyer of foot cushions might be made a *multiple* customer.

The simple, extremely inexpensive carding illustrated above makes the heel cushions highly saleable, and helps build volume on related products.


EASY TO GROW... 782 models... liberal trade-ins.
EASY TO BUY... Rental or budget plans.
BOSTITCH
EAST GREENWICH • RHODE ISLAND
EASY TO GET... 300 specializing representatives in 81 U. S. cities, 39 foreign countries.
EASY TO USE... Anyone can easily operate any of the 782 models..
EASY TO SUIT...18 research engineers fit Bostitch to your needs.
Staple Service

INEXPENSIVE ADDED SALES APPEAL FOR YOUR PRODUCT VIA BOSTITCH CARDING

For manufacturers of small objects —Bostitch carding offers:

1. an inexpensive fastening method that keeps shop-lifters and rough handling from detaching your product from the card.

2. a means to giving your product more display, providing information, etc.

Why not write today, for your free copy of "Building Sales and Protecting Profits through Carding and Display"? Write to Bostitch, Incorporated, 56 Division Street, East Greenwich, Rhode Island.

INTRODUCED less than a year ago, Transparent Packages by Ritchie are already to be found in preferred positions on thousands of counters and showcases. In drug, department and variety stores practically everywhere. Helping to sell baby shoes, belts and buckles, cosmetics — practically everything! Illustrated, along with other types of Ritchie packages, are four new Transparent Packages in four different fields.

3 PACKAGING ADVANTAGES FOR YOUR PRODUCT

Whether it's a Set-up Paper Box, Fibre Can or Transparent Package, if it's made by Ritchie it reflects these three basic advantages. *Economy* — through the modern, money-saving facilities of one of America's largest boxmakers. *Experience* — 73 years of it. *Sales Value* — Ritchie packages are always designed and produced to win dealer display space and consumer preference in the particular market they reach.

Aren't these also three good reasons for finding out more about Ritchie's design and production facilities? Write today!

SET-UP PAPER BOXES
FIBRE CANS
TRANSPARENT PACKAGES

W. C. Ritchie AND COMPANY

8849 BALTIMORE AVENUE • CHICAGO

NEW YORK DETROIT LOS ANGELES ST. LOUIS MINNEAPOLIS DENVER TACOMA

WHAT PRICE PLASTICS?

A Survey by the Institute of Package Research

"Oh yes, we know all about plastics. We considered them about nine years ago. We even got estimates, but they were way out of line. Sure, I know they're doing some marvelous things with plastics nowadays, but they aren't for our kind of products. Our mark-ups just won't permit us to use anything more expensive than what we use today. Don't tell me we'll get greater sales through a better package. We know that. But there just isn't the margin to pay for it. We looked into the whole subject and much as we would like to use plastics, it's just a closed book. Personally, I don't understand how some of the people who do use them manage to pay for them—"

And so ad infinitum—far, far into the night.

* * *

If you considered plastics ten years ago—or five years ago—or a year ago—or only six months ago—you've got some new considering to do, because the picture of plastics in packaging is changing at an accelerated pace and the figures which meant so much, a year ago or five years ago, mean very little today.

Not that plastics should be considered as a matter of costs alone. Far from it. Plastic packages, package parts, closures and package accessories have won a place for themselves not *because of costs*, but *in spite of costs*. They have proved, time and again, that they can add values to the product which far transcend costs and thus they have won sales for themselves even during the years when cost was king. They have brought new beauty, longer life, reuse values, simplicity of fabrication, simplicity of assembly, eye appeal, display value and a half hundred other advantageous qualities to many products.

But sooner or later, the factor of cost raises its ugly head and the entire point of this survey is to demonstrate

TABLE 1

COAL-TAR RESINS

UNITED STATES PRODUCTION AND UNIT VALUES, 1927-37*

YEAR	PRODUCTION POUNDS	UNIT VALUE
1927	13,452,230	$0.47
1928	20,411,465	.35
1929	33,036,490	.33
1930	30,867,752	.30
1931	34,179,000	.27
1932	29,039,000	.21
1933	41,628,485	.23
1934	56,059,489	.23
1935	90,913,162	.19
1936	117,301,780	.20
1937	141,098,844	.19

* All statistical data taken from "Synthetic Resins and Their Raw Materials," United States Tariff Commission, Report No. 131, Second Series.

TABLE 2

NON-COAL-TAR RESINS

UNITED STATES PRODUCTION AND UNIT VALUES, 1933 vs. 1937

YEAR	PRODUCTION POUNDS	UNIT VALUE
1933	3,571,717	$0.54
1937	21,005,869	.30

that with plastics—as with every other packaging material and method—cost is a changing thing.

In the plastics industries there have been few sensational drops in the various factors which go to make up the cost of the finished product. Labor costs have actually increased. Material costs in certain categories have decreased very substantially, but not to an extent that might, by itself, be termed sensational. The change in the cost of plastic packaging—and a substantial change has occurred—has rather been the result of continuous nibbling at costs by the entire industry from all directions and particularly from the side of technical improvements and scientific advances which has devised new design methods, new production methods, new machinery and new materials.

Each small advance may make only a slight revision necessary in the cost picture. Put all these advances together and the indisputable fact appears that plastics today are not only more versatile, more beautiful, more utilitarian for packaging purposes than they were ten years ago, but are, at the same time, less expensive.

Material Costs

The synthetic resins industries are relatively new, most of their commercial development having occurred in the past ten or twelve years. In 1927, the domestic output of synthetic resins of all types was slightly more than

TABLE 3

TAR-ACID RESINS

UNITED STATES PRODUCTION AND UNIT VALUES, 1927-37

YEAR	PRODUCTION (net resin content) POUNDS	UNIT VALUE
1927	13,452,230	$0.47
1928	20,411,465	.35
1929	26,235,792	.39
1930	18,338,389	.38
1931	22,647,000	.31
1932	17,163,000	.26
1933	31,697,780	.23
1934	40,633,565	.25
1935	52,731,728	.19
1936	70,349,328	.19
1937	79,844,825	.19

10,000,000 lbs. In 1937, this figure had climbed to over 160,000,000 lbs. within a single decade. Some drop was experienced in 1938, but the 1939 figure, it is anticipated, will record an all-time high.

Coincident with this increase in production came a very substantial drop in prices, dramatically illustrated in Table 1. This price decrease may, in part, be laid to the fact that competition in the industry supplying "raw" plastics substantially increased subsequent to the expiration of basic patents during the 1920's. A more important factor, no doubt, has been the decrease in unit production costs, which correlated closely with the increase in the number of pounds produced—a change ascribable both to volume production as such, and to rapidly improving techniques of production.

While the figures quoted in Table 1 apply to coal-tar resins—phenolic plastics, alkyds, polystyrenes, etc.—very much the same sort of change has occurred since 1933 in the case of non-coal-tar resins (ureas, vinyls, acrylates) as is demonstrated by Table 2.

Consider, for instance, the tar-acid resin group (of which the phenolic resins form the major part)—the group which is, perhaps, most widely used for packaging purposes. Here we see a ten-year increase in production poundage of more than 500 per cent with a drop in unit volume, i.e., cost per pound, of some 70 per cent (see Table 3).

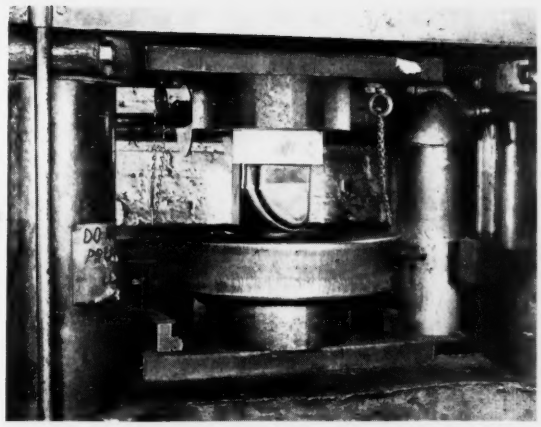
It should be noted that the greatest reduction in molding material costs has occurred in those fields and among those types of resins which have been longest in use. This is but natural when the inverse correlation between the production volume and cost is considered. While conditions vary with each type of plastic material, it is safe to predict that similar, though not necessarily equal, changes in cost will, in the future, occur among those types of resins which are newer to the field. On the other hand, it will be noted that within recent years, the phenolic resins have shown a leveling off in their changing cost figures which would indicate that they are approaching stability in the production cost relationship and that fluctuation in the future, if it occurs at all, will be dependent to a greater extent upon basic raw material costs and to a lesser degree upon volume increase.

At any rate, it is obvious that those companies which rejected plastics as a packaging material some years ago, on the basis of then existent molding material costs, must today reconsider the picture in the light of the changing situation.

Mold Production

Plastic packagers some years ago tended to place high importance upon mold costs. Stock molds were not available in the profusion in which they now exist. Private molds were figured, for amortization purposes, against relatively short runs. This form of calculation was logical for its time since no one could predict, in an experimental field, the acceptance which any new plastic package was likely to receive. Today, however, many factors governing such acceptance may be taken for

1



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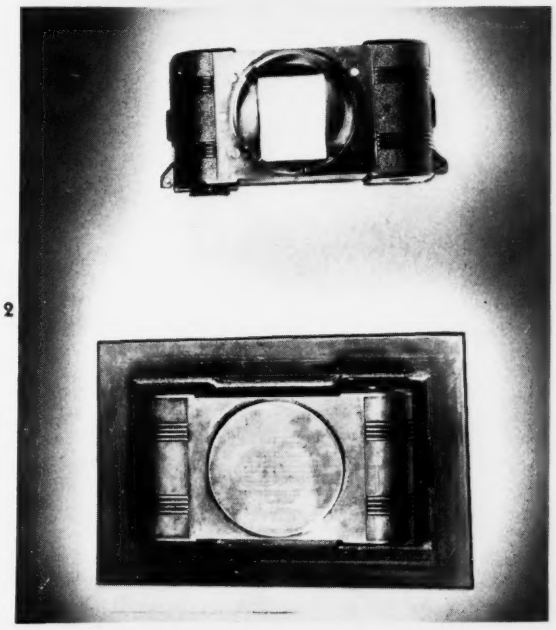

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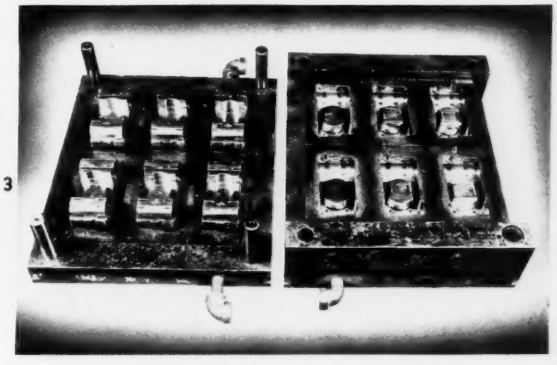


1. This illustration shows a hobbing die sinking down into a solid block of steel. **2.** A chunk of steel machined to shape, heated, allowed to cool slowly; then reheated and cooled again, becomes a hard, tough hob requiring only final polishing. Such a hob is shown above together with the plastic molded part. **3.** This six cavity mold, in operation at Chicago Molded Products Corp., was produced by hobbing the cavities and then machining them to final finished form.

granted on the basis of previous experience and thus many companies contemplating a plastic package, closure or package part may confidently anticipate amortization of mold costs over a larger number of molded units.

The cost of producing a single-cavity mold has not changed greatly within the past few years and is still very substantial. In some cases, costs will actually be greater today than during the late 1920's or the early 30's because of the increase in skilled labor costs.

However, the possibility of anticipating increased volume of production for any given mold introduces the parallel possibility of considering the use of multi-cavity molds. Here an immediate cost reduction occurs, in the sense that two cavities of the same shape can be produced for substantially less than double the cost of a single cavity. The invention of new profiling machines and the substantial improvements in hobbing processes have served to accentuate and enlarge this differential.

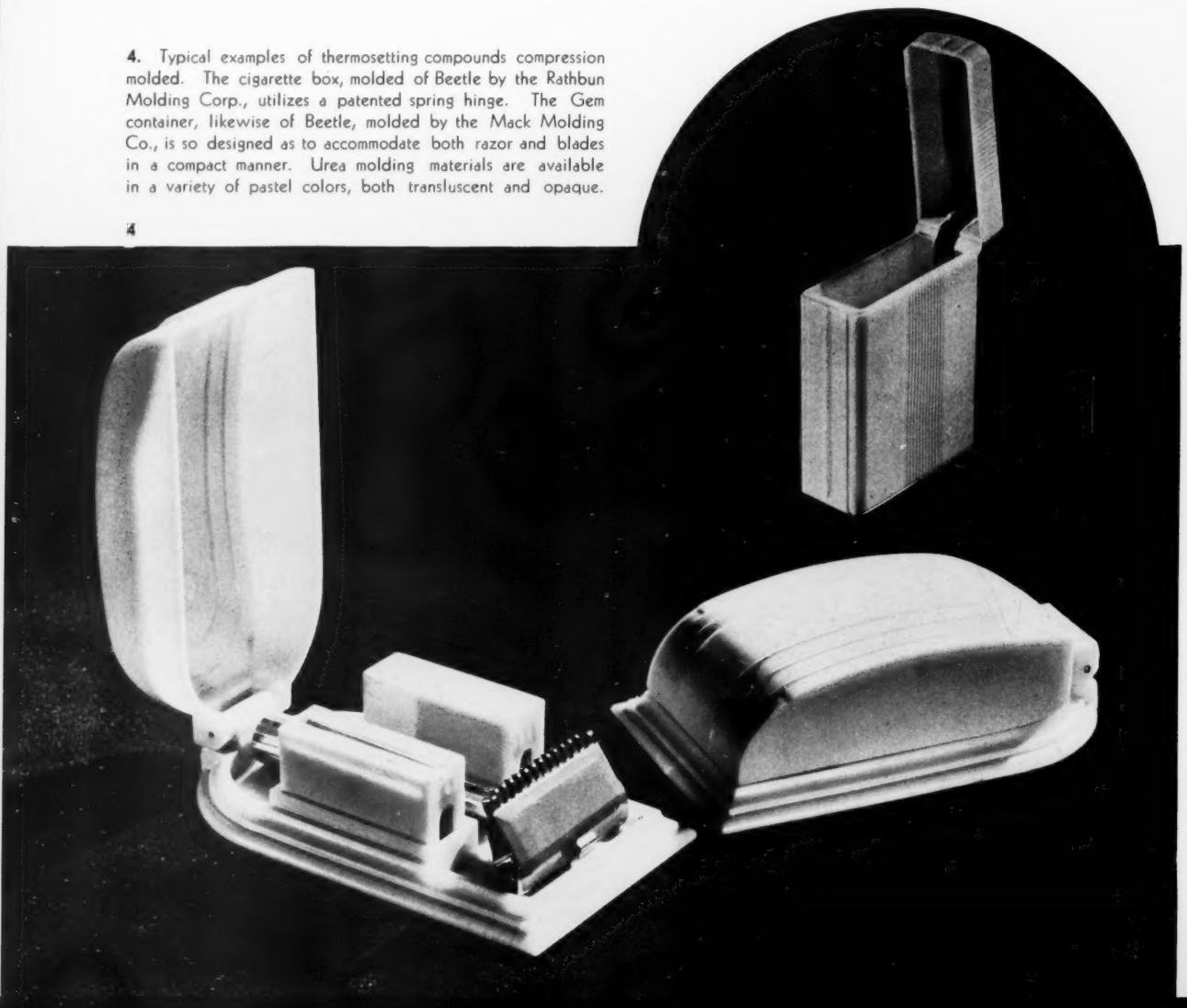
New types of tool steel have been developed, permitting of less expensive hobbing operations and providing longer mold life. Thus, particularly in the case of multi-cavity molds, the cost per mold may be somewhat lower than it would have been a number of years ago and the cost per piece to be molded (when consideration is had of the longer life of the mold due to the use of better tool steels and of mold finishing operations) may be substantially lowered.

A number of new processes for the making of molds, particularly applicable to short run production, have likewise substantially reduced costs in this portion of the field and thus we find that tool costs—all things considered—tend to run lower than they did a decade ago.

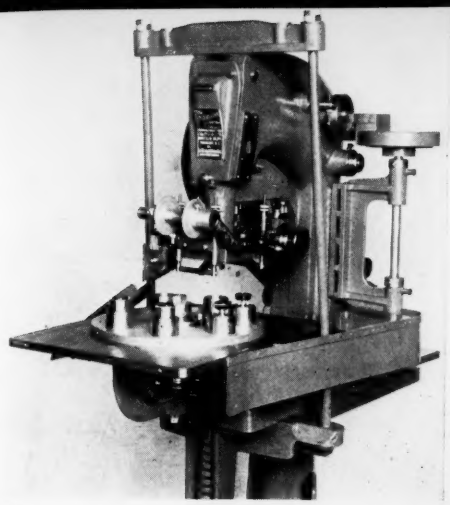
Design Improvements

Another cost-reducing factor—and one which is not usually given great consideration—is that made possible by changes in design trends and techniques. Plastic designers of ten years ago went in for elaborately treated surfaces, partly because they considered plastics as an imitation or substitute material, and partly because plastic materials and molding methods were not then so perfected as to permit of the development of smooth, blemishless surfaces. Such complicated surface treatments frequently involved added mold costs and a higher percentage of rejects.

Mold design has changed also in a mechanical sense. Designers have learned how to achieve great strength without undue thickening of cross sections. The average plastic box today has a wall thickness from 30 to 50



4. Typical examples of thermosetting compounds compression molded. The cigarette box, molded of Beetle by the Rathbun Molding Corp., utilizes a patented spring hinge. The Gem container, likewise of Beetle, molded by the Mack Molding Co., is so designed as to accommodate both razor and blades in a compact manner. Urea molding materials are available in a variety of pastel colors, both transluscent and opaque.



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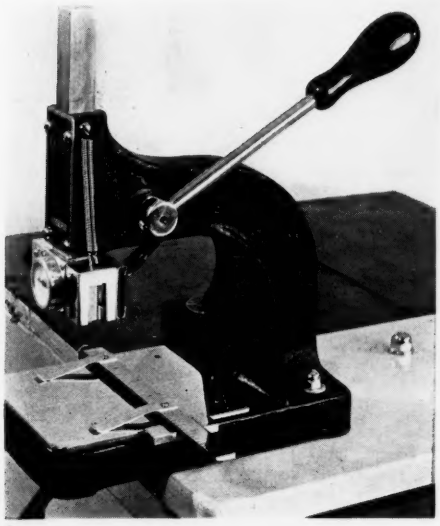

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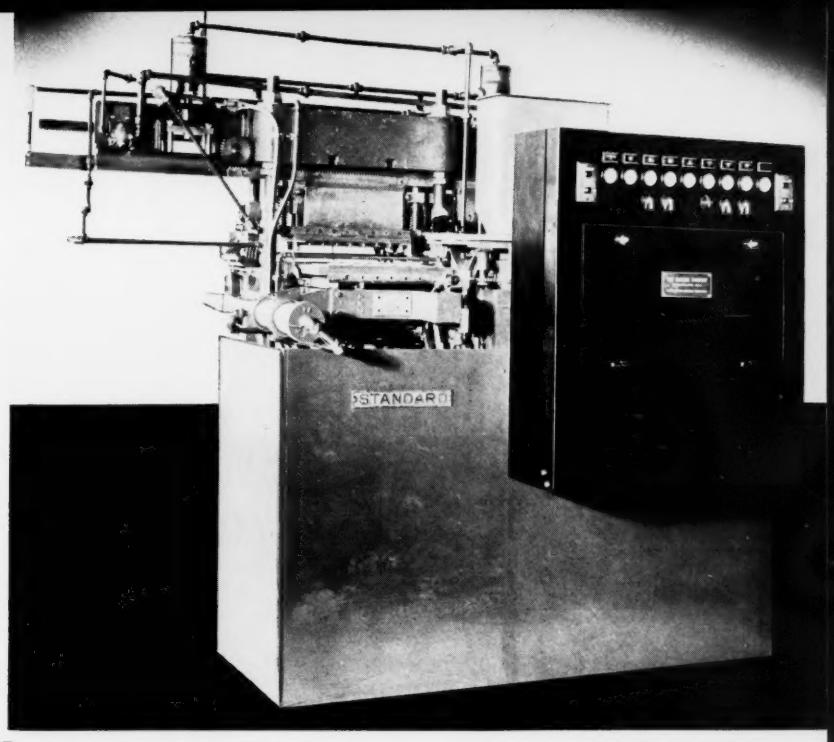

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5. This Peerless Roll Leaf Company's press is designed especially for stamping plastic sockets. **6.** For small jobs, a Kingsley Gold Stamping Machine Co. precision-built gold stamping machine dependably and economically prints individual names, etc., on plastic parts. **7.** The new Standard automatic self-contained press for thermosetting materials. While one mold is under pressure, another is outside the platens, being recharged for its next pressing. This press is operating at Bridgeport Moulded Products, Inc., and is available through F. J. Stokes Machine Co.

per cent less than that of its counterpart of ten years ago. It weighs less, requires less material, molds on a shorter cycle and, hence, its cost is necessarily lower.

In part, this reduction in wall thicknesses has been made possible by the development of stronger materials having greater impact resistance, or a greater ability to flow into the crannies of a mold for thin-walled sections.

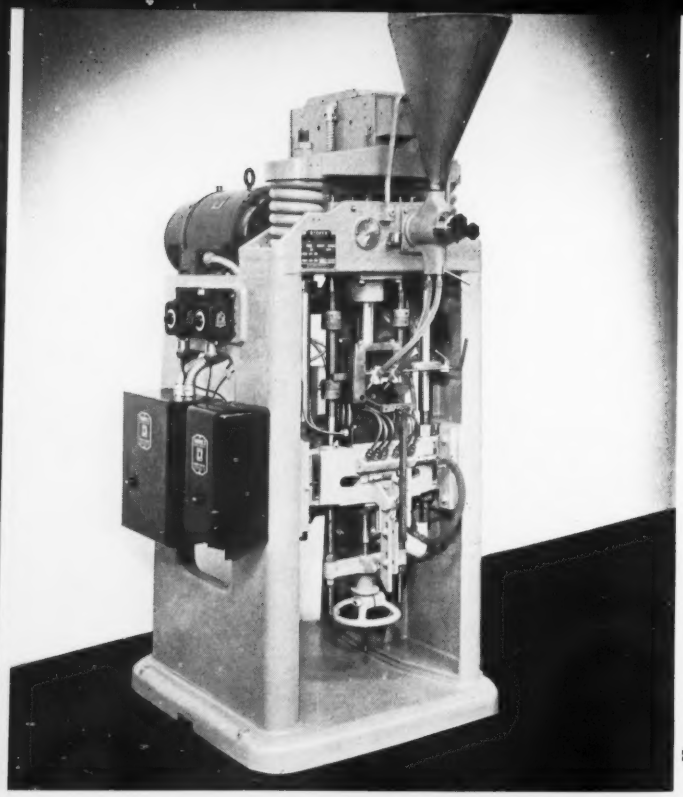
Other design changes have tended to increase costs in the sense that they involve processes heretofore unavailable or utilize materials having a higher basic cost than the materials available ten years ago. Thus it is obvious that the use of a resin of newer type, which today costs more than the only resins available ten years ago, would involve some increase in cost. This increase, however, is one which the packager consciously undertakes in order to gain qualities—such as brilliant light color, or transparency—which were not available in the past.

Another form of design improvement has literally hinged around hinges. Practically the only hinges available in the early days of plastics were the conventional piano hinge type, which required either riveting or attachment with self-tapping screws. These were expensive, both because they required heavier sections in the molded parts of the package and because they had to be assembled by fairly tedious hand operations.

Today a variety of spring hinging devices are frequently utilized, particularly on jewelry boxes, to secure a speedy, fool-proof and inexpensive attachment between the base and cover of a container. Such hinges snap into place. They have the advantage of permitting the opening of a container to a predetermined angle and they require no such degree of thickening of the molded walls as was formerly demanded.

Other devices—such as patented nuts, caps, self-tapping screws and recessed head screws—have likewise achieved wide adaptation in recent years, with a consequent reduction in assembly operations.

The use of applied decoration—printing, roll leaf stamping, engraving, decalcomania, metal inlays and metal plating—has likewise contributed not only to the versatility of the plastic medium as an instrument for achieving sales appeal, utility and beauty, but likewise as a means of reducing the cost of achieving a given effect. Recessed or relief lettering and so-called "wipe-ins" are no longer the only available means of package decoration and the packager and his plastic molder—having a wider field to choose from—can choose that method which provides the most desirable effect at the lowest cost.



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8. The Stokes completely automatic molding machine has a 15-ton capacity, with dual feed and individual powder measuring device to each cavity. Output is reported at 13,440 molding per week. **9.** The Watson-Stillman side-ram press is fully automatic with a horizontal opening between plates of 19 in. (25-ton capacity) and 22 in. (50-ton capacity) with a vertical opening of 21 in. and 23 in., respectively. The oil reservoir and pump are in the base. It is capable of turning out complicated parts without human attention. **10.** Each minute, 350 preforms can be turned out by this Stokes rotary preforming press.

New Molding Methods

Perhaps the greatest of all transformations affecting cost has occurred in the molding plant itself in the form of new machines and new methods for molding. In considering these new machines, it is important to remember that the standard compression molding press has in itself been subject to much improvement in recent years. Larger presses have become the rule rather than the exception, and where their use is indicated for either larger moldings or multi-cavity moldings, they are now available almost universally throughout the custom molding industry. New control features on such presses permit of more economical operations, of speedier loading and unloading and of operative economies in the more efficient utilization of power and heat.

These changes, while unspectacular and while small in their individual effect upon cost, have, in the aggregate, provided a substantial reduction in molding costs.

A recent development has been along the line of automatic molding and there are now a number of automatic presses of various types in operation. While not applicable to all packaging jobs and while still—to a degree—in the development stages, such presses obviously provide the hoped for answer to rising labor costs because they make the molding of plastics independent of skilled operators and because they eliminate the errors of human omission or commission. They cut flash losses and the consequent wastage of material and do away almost entirely with finishing and inspection operations that were formerly necessary. They make it possible to obtain large output from inexpensive single-cavity molds and thus hold the initial mold investment to a point so low that it is now profitable in some instances to mold plastics even in limited quantities and for purposes where they never before have been economical. Because initial mold cost is low, it is easy and practicable to change design in an automatically molded product as often as may

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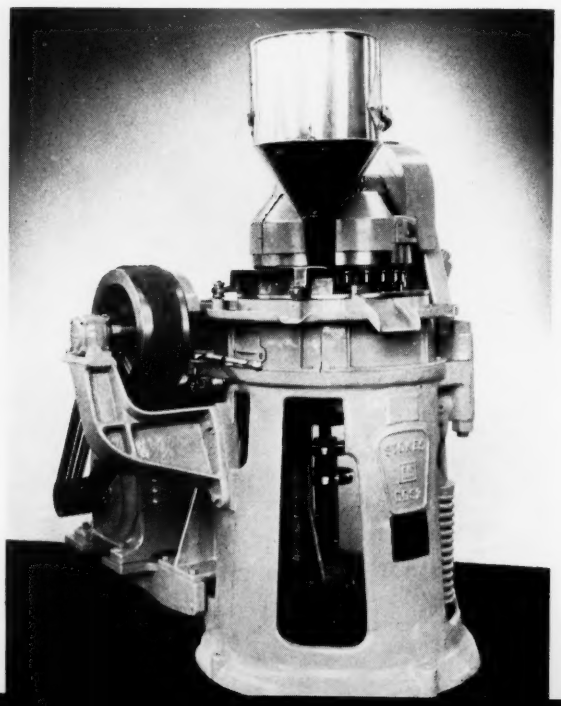

be advisable and at little expense. Inventories can likewise be kept low, a factor particularly important where storage of molded plastic packages presents an expensive problem in itself.

The compression molding press built by Standard Machinery Co. is self-contained, entirely automatic in operation, designed to use multi-cavity molds and give low molding costs for large production runs. It performs all the operations of routine molding including preheating the powder, loading it into cavities, closing and opening the mold for gassing and curing, ejecting the finished parts, blowing flash from the cavities and forces. The cycle repeats with no manual attention necessary other than to keep a hopper filled with molding powder. Molds are protected from the possibility of double pieces being molded and from resulting damage and repairs.

The press is so designed that the ejecting, cleaning and loading of the mold is done outside of the press cycle. Two sets of molds are used. While one mold is under pressure during the cure, the other mold is outside the platens of the press, the upper mold to the left and right of the head of the press alternately and the lower mold moves to the front and back of the press bed alternately. With this construction, the remaining time of the press cycle, outside the curing period, is the time required for the press to open, the molds to shift position and the press to close, all of which requires about 13 sec. with a 6 in. stroke of the ram. Hoppers are arranged on the front and rear of the press and the cavities of each mold are filled alternately from these hoppers by means of an automatic loading board.

During the past year the F. J. Stokes Machine Co. has done a large amount of research and development work to broaden the range of automatic molding, adapt automatic methods to special applications, make it practicable to automatically mold materials other than free-flowing granular powders and further increase press output and lower production costs.

The company has added to its line a number of new models, including a larger press, with 10 in. max. stroke, to mold parts up to 4 in. in height or 6 in. in length and with projected area up to 19 sq. in. These machines are now available in both thermoplastic and thermosetting models, with steam or electrically heated platens, for rated pressures of 10 tons and 15 tons. Models have been developed with double and triple feed and measuring devices for feeding materials of differing type or color or feeding powder into two or three molds mounted on the same platen; for feeding special materials with high bulk factor; with unscrewing devices by means of which parts molded with threads may be unscrewed and ejected automatically; for molding parts with side-draw.

These machines automatically measure out and charge the mold with the required amount of powder, close the mold for plasticizing, open for degassing, close for curing and then open, eject and discharge the finished molding at the same time the mold is being blown out and the following charge is being measured out. Each step of the cycle and its duration is timed and controlled to the split second. Uniform physical properties and dimensions of molded parts are assured, because the time, temperature and pressure are automatically maintained constant for each curing period.

These machines have been in service in many plants for lengths of time sufficient to have developed much interesting data on automatic molding costs compared with conventional molding costs on identical parts and quantities, also costs of parts fabricated by die casting, stamping, etc., as compared with costs of the automatically molded parts which replaced them.

The following "case histories" have been boiled down to the bare facts purposely for the sake of brevity; but authenticating data is available in every instance. A toy manufacturer substituted an automatic molding for a die casting and savings paid the entire cost of the press,

11. Typical preforms of a wide variety are pictured here. Their shapes frequently indicate their eventual use, but the majority of preforms are in the shape of tablets, rings and balls. Those shown were preformed on Stokes tablet compressing machines.

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mold and installation in 100 days. A novelty manufacturer saved 58 per cent, obtained a much finer finished and stronger product when he replaced wooden turned and painted parts with automatic moldings. One electrical manufacturer cut the cost of moldings from one cent each to approximately one-tenth cent. For the price he would have paid for the 50-cavity mold recommended for conventional molding practice, another electrical manufacturer bought and paid for an automatic machine and a four-cavity mold which gave parts in sufficient quantity for his production requirements.

Many equally good examples could be cited, but perhaps one of the most outstanding is the case of an aluminum part, turned in an automatic screw machine, at a shop cost of $76.00 per thousand. It was found that a plastic molding, equally satisfactory in all respects and superior in some of its qualities, could be produced at $12.00 per thousand. Then there's the case of a toaster leg, automatically molded four at a time in a sub-cavity mold, at a shop cost (no overhead) of $1.70 per thousand. The former cost of this part was $15.00 per thousand.

With automatic molding, parts can be produced in practically any required quantities, large or small, at low costs. Since the machines require no operating attention, they are run continuously, 168 hours per week, and output is high even when a single-cavity mold is used, and proportionately greater, of course, as more cavities are included in the mold. With a 60 sec. cycle, for example (and many parts can be molded automatically in less time), output of one cavity is 10,080 moldings per week. With a four-cavity mold on the same job one million parts can be produced in 173 days.

The highest known output so far attained by a Stokes machine is in the plant of a toy manufacturer who, using a sub-cavity mold for 19 pieces, is producing a million moldings in approximately 35 days.

The Watson-Stillman Company's automatic compression molding machine, introduced in July of this year, is an automatic, self-contained press in which either loose granular materials or preforms are fed into a hopper and the various operations of the molding cycle are performed without manual attention. It consists primarily of two hydraulic cylinders, one vertical, one horizontal; also feed and ejector systems automatically timed to function in proper sequence.

The machines are offered in 25-ton, 50-ton, 100-ton and 150-ton capacities and while they are designed primarily

12. Twenty-four powder can closures injection molded of Tenite at a single shot by Bridgeport Moulded Products, Inc. **13.** Chicago Molded Products Corp. uses accurately shaped preforms for molding intricate parts as indicated here. **14.** Rotary ovens for preheating molding compounds are made with a single drum or with a series of four, six or eight drums, electrically heated with automatic temperature controls. This one was manufactured by Chas. F. Elmes Engineering Works. **15.** A 4-oz. capacity De Mattia horizontal injection press that is operated mechanically. **16.** Watson-Stillman Co. has recently begun production of the Wasco automatic injection

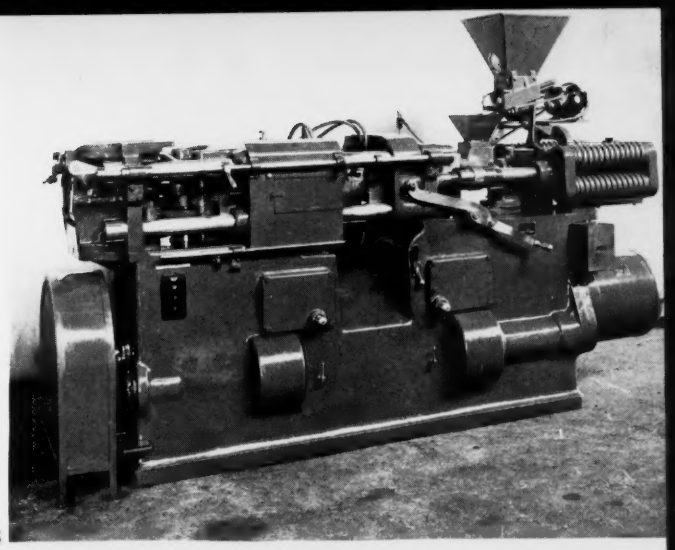
for thermosetting materials, it is reported that thermoplastics may be molded as well.

It is claimed that any type of die may be used—flash, semi-positive, positive or split; in single or multiple cavity with one or more rows. Split dies are used without special handling and may be mounted in a vertical or horizontal position. Adjustable stripper rods are provided on both vertical and horizontal cylinders. Pressure on cylinders is adjusted independently.

Boonton Molding Co. has built a "robot" press in which preforms are made for each individual mold cavity, preheated to reduce curing time and then fed to the mold of a standard 200-ton press which is fitted with full automatic controls. The preforms travel to the main press in conventional-type loading trays, the press performs the complete molding cycle in the usual manner and finished parts are ejected automatically. Bottle caps molded on this machine are said to have 15 per cent to 20 per cent greater strength, production costs have been considerably reduced, rejects have been cut to less than $1/10$ of one per cent and flash losses have been reduced. This machine was put into service by Boonton in April of this year.

Along with the development of improved non-automatic presses and of automatic compression molding presses, improvements have been made in preforming equipment which permit a wider use of this method of preparing the molding powder for the press. Preforms are tablets or pills of compressed molding powder containing exactly the proper quantity for each part to be molded and conforming more or less to the form of the mold cavity. The use of preforms speeds up molding operations by speeding up the feeding of material into the press. Since preforms are dense material and plasticize more rapidly than when in loose powder form, flow is quicker. Cure is faster. Hence, the press is capable of a greater number of cycles per hour and thus, frequently, a mold with a lesser number of cavities will produce moldings in the required volume—which of course reduces initial mold cost.

Another reason why greater output per press is possible—with accompanying savings—when preforms are used, is because the mold requires less depth, the powder having already been reduced to about one half its original bulk. This reduction in bulk permits a reduction in the travel of the press ram in opening and closing and hence serves to further speed up the press cycle and to increase its productive molding time. *(Continued on page 100)*



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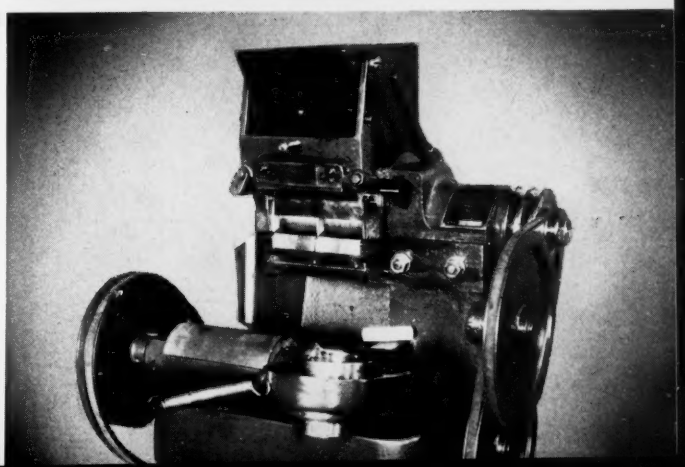

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presses. A battery of them, installed for Universal Plastics Corp., is shown here. **17.** This is a pantograph engraver which cuts letters or designs with a rotating cutter driven by a standard motor. After the design is cut, it is filled in with gold, silver or white paste according to the contrast desired. **18.** Automatic abrasive forming machine has superseded many of the time-consuming hand operations formerly employed. Cut rods fed into the hopper drop automatically between the stones and as many as 350 $1\frac{1}{2}$-in. balls are turned out per hour. Ten thousand balls, $\frac{3}{16}$-in. in diameter, can be produced in an hour.

PACKAGING INSTITUTE CONVENES

In its first session as a federated organization the Packaging Institute, Inc., met on October 19 and 20 at Chicago's Edgewater Beach Hotel

Principal interests centered upon the conference of representatives of package supplying companies which considered the advisability of forming a Supplies Division affiliated with the Institute. This conference voted full and wholehearted cooperation with the other bodies of the Institute and appointed a Steering Committee to make detailed plans for a formal organization meeting and for the election of directors to represent the Supplies Division. The Steering Committee consists of A. E. Throckmorton, representing the Container Corporation of America; P. M. Gilfillan, representing Shellmar Products Co.; A. V. Shannon of the Westfield River Paper Co., Inc., and Frank K. Greenwald of the National Starch Products, Inc.

The present officers of the Packaging Institute, Wm. M. Bristol, Jr., president, and Carl H. Lambelet, vice president, were re-elected.

1. William M. Bristol, Jr., wearing that re-election smile, about to begin a new term as president of the Packaging Institute.

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Re-elected as directors of the Production Division to serve as representatives of that division on the board of the Institute were: Harold M. Bowman, Unit Packages, Inc.; H. F. Brownell, McKesson & Robbins, Inc.; William M. Bristol, Jr., Bristol-Myers Co.; J. Y. Lund, Lambert Pharmacal Co.; George R. Webber, Standard Brands, Inc.; L. P. Weiner, Hiram Walker & Sons, Inc.

Directors elected by the Machinery Division were: Kendall D. Doble, Pneumatic Scale Corp., Ltd.; Carl E. Schaeffer, Stokes and Smith Co.; Morehead Patterson, American Machine and Foundry Co.; Carl H. Lambelet, New Jersey Machine Corp.; George A. Mohlman, Package Machinery Co.; Charles L. Barr, F. B. Redington Co. Mr. Mohlman and Barr replace retiring directors Wallace D. Kimball and G. Prescott Fuller.

A Standardization Committee to consider both legislative and standardization matters was appointed, with George R. Webber of Standard Brands, Inc., R. T. Krantz, Colgate-Palmolive-Peet Co. and L. P. Weiner of Hiram Walker & Sons representing the Production Division and Morehead Patterson of the American Machine and Foundry Co., representing the Machinery Division.

The Steering Committee of the provisional Supplies Division will represent that division on the Standardization Committee until formal organization of the Supplies Division has taken place.

President Bristol, in welcoming the members and visitors at the opening session of the meeting, outlined in some detail the projected program of the Institute as prepared by a committee consisting of George R. Webber, Harold M. Bowman and Carl H. Lambelet.

Significant among the recommendations of the program committee, in view of a later discussion at the sessions of the individual groups, were the following:

"We recommend that the Institute continue to sponsor and work for a standardization of various packaging materials in order to reduce waste and promote production efficiency in all plants. Your Committee realizes that this is no one-year program, but that this will require the continuous effort of all divisions of the Institute, and steps should be taken to keep all members informed of new developments in machinery and materials which will improve our position, and help to bring about standard practice in the art of packaging.

"Another worthwhile activity which seems to be well within the scope of the Institute, is the establishment of an Arbitration Committee which would set up rules by means of which disputes between suppliers of materials or machinery, and users, may adjust their grievances in

the event of alleged failure to perform as specified, and in case the parties involved cannot come to terms.

"It is intended that such an Arbitration Committee would be drawn either by lot or selected from the membership to hear both sides of the controversy and be qualified to pass an opinion that would lead to a mutually satisfactory settlement without recourse to law. Please understand that your Committee expects that an Arbitration Committee would be seldom used, but we feel that the rules by which it could function smoothly should be drawn up so that in case of a dispute it can be handled in a suitable manner.

"We propose the appointment of a well qualified Legislation Committee, whose duties it will be to keep informed as to pending legislations which may be adverse to the packaging industry and its affiliates. It should be the duties of this Committee to bring such matters to the attention of all the members in our monthly "Bulletin," so that prompt action can be taken by all the membership if matters of vital importance are proposed."

Mr. Bristol said in part: "Whether the Government cooperates or not (and I think it will), I am sure it will be to the advantage of every one in the Packaging Institute, in fact in the industry, to unite and present our side, armed, as I said, with the fact that *we know more about this than anyone else in this country!*

"But in order to do this, we must be properly organized, and our cases must be authoritatively submitted. Therefore it seems to me that one of the first, if not, in fact, the *very* first objective we must undertake is this particular one. It is a big undertaking and it will cost money, but if done right, I believe it will save literally thousands of dollars for every member of the Institute. I say every member, for although the production men are on the firing line, I call to the attention of the machinery manufacturers that if they have to redesign their machines, that is going to cost them money, and if their machines can't be designed to satisfy the Government, their business will suffer if not disappear. I call attention to the suppliers; if their tolerances are unacceptable, then they too will suffer. I call attention to the designers, for if we can establish definite rules, their packages will flourish. If not, they will have to individually fight each case out, and I know that is expensive.

"So I say, underwriting the cost of doing this now will save us a great deal more than if we don't, and therefore I recommend that we do it now. Just to promote a general discussion, I submit the following proposal:

"First, we must be adequately staffed.

"Second, we must collect and collate a lot of data on this subject, secure the opinions of the suppliers and machinery men—their standards and tolerances—then examine the packages of our members, discuss and justify their sizes, etc.

"Third, armed with this information, establish ourselves as authorities in the minds of the Government agencies.

"Fourth, offer the services of our staff for discussing this problem with each of the members and, if necessary, help them in special cases with the Government.

"Fifth, continue indefinitely to police this packaging industry. Establish in the minds of the consumers and the Government our sincerity and our honesty—in other words, publicity."

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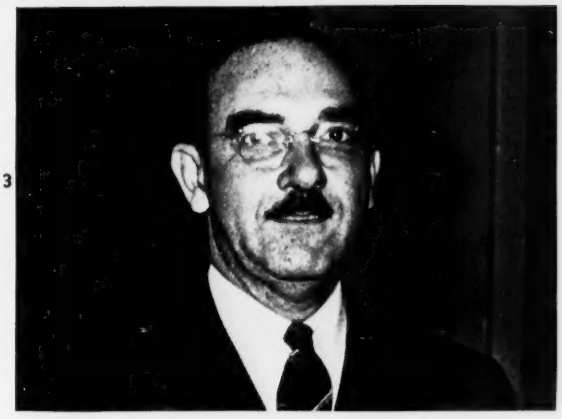

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2. Allan H. Mogensen applies work simplification methods to the consumption of a pretzel. **3.** Carl H. Lambelet, New Jersey Machine Corp., newly elected president of the Machinery Group and re-elected vice president of the Packaging Institute.

After afternoon meetings of the various federated groups, the entire body reconvened at an evening banquet session addressed by Charles A. Breskin, Publisher of Modern Packaging. Stating that he considered the occasion as one which marked the turning point in the history of packaging, Mr. Breskin pointed out: "This *federated* type of organization is the key to achievement of your objectives. It represents a pioneer step among trade and business associations, each special group within our industry—machinery manufacturers, package producers, designers, and suppliers—will continue to solve its own problems independently. But the Packaging Institute, as a federation of all these interests, will help to solve our inter-group problems. In addition, it will create a united voice for our entire industry with which we may speak out against unjust legislation, regu-

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4. The Steering Committee of the Supplies Division prepares for its labors. On the left, E. A. Throckmorton of the Container Corp. of America and P. M. Gilfillan of Shellmar Products Co. Extreme right, A.V. Shannon of Westfield River Paper Co., Inc.

lation, misrepresentation and ignorance, and tell the public facts about our industry.

"The energy and enthusiasm which are apparent in this meeting can generate a tremendous force which will benefit all of us in the packaging industry, and the consumer as well. But, it must be controlled and directed into a few carefully-chosen channels. If an individual or an organization will lick a few immediate problems this year, this experience and this sense of accomplishment will result in the solution of more intricate problems next year, and still others in the year following.

"It seems to me that the first task which confronts you as you write out your program is to arrange in sequence the objectives which you wish to accomplish. You must put *first* things *first*. As I think about your potential program, it seems to me that three problems of our industry demand attention before all others. I should like to list these problems for you in what I consider to be their order of importance and describe each of them in a word or two: first, *regulation;* second, *public relations;* third, *standardization and research.*

"Packaging has been subjected to a far greater degree of government regulations, through federal, state and local laws, than any of us would have thought possible a few years ago.

"Most of this regulatory legislation exercises its restrictions upon the package rather than the product. It is much easier to condemn a package than to condemn bulk merchandise which bears no identification. It's hard to misrepresent a tomato and get away with it. If the tomato is bruised, everyone can see the bruises. Germs on the tomato are less obvious, but, up to the present time, the seller has not generally been responsible for them. But put the same tomato in a sanitary container and there are *at least 175 different ways* in which the information on the label may violate existing laws.

"Please don't misunderstand me. I do not condemn all regulatory legislation. Many of the laws which affect our industry benefit the producer as well as the consumer. The new Food, Drug and Cosmetic Act, for example, protects honest manufacturers against unscrupulous competition. Some regulations which apply to labeling are utterly ridiculous, but the principle of requiring information on a label, in my opinion, is thoroughly sound.

"Everyone here, I believe, is anxious to outlaw deceptive packaging. And yet this fundamental desire of leaders in the packaging industry is frequently misunderstood and misinterpreted by legislators and those outside the industry. Defining the true attitude of our industry throughout the country, wherever regulatory legislation is proposed or administered, is a gigantic job. If it is well done, everyone in the packaging industry will benefit. No organization can perform this job as well as yours.

"The Packaging Institute, in its function of regulating our industry, will occupy a different position, I believe, than most of the associations in the toiletry, drug and grocery trades, with which many of you are familiar. These organizations are extremely valuable both to their members and to the consumer. But, too often they are considered as 'special pleaders' when their representatives make a public statement in Washington or in one of the state capitals. When an organization represents a single, specific trade or industry, it may be obliged to appear as a 'special pleader.' But the Packaging Institute is a federation, representing all the diverse branches of this great industry. Its statements and opinions, therefore, should carry much greater weight, both with members of the legislative bodies and with the public whom they represent.

"The Packaging Institute represents the *technique* of

packaging. When its spokesmen express the opinion that a proposed change in package construction cannot be accomplished with existing packaging machinery, their conclusions are accepted as statements of fact. When they suggest that another change is inadvisable because it favors one branch of the packaging industry at the expense of another, this opinion will be accepted as unbiased and authoritative.

"Another type of legislation which the Packaging Institute should oppose, in my opinion, is the imposition of excessive taxes upon packaged merchandise. In the urge to find additional sources of income to meet increasing government expenses, there is a growing tendency among legislators to levy tribute upon packaged products. This form of taxation, in fact, has become so burdensome that it literally threatens to force our distribution methods back to the cracker-barrel stage. Pyramiding of federal, state and local taxes on cigarettes sold in New York City, I am told, increased the sale of 'roll your own' equipment for smokers by several hundred per cent.

"A second immediate objective, which I believe deserves the attention of the Packaging Institute is public relations. By this I mean educating the consumer to understand and to appreciate the advantages which he derives from effective packaging. Social and economic trends emphasize the growing importance of the consumer in industry. A kind of holy war is being waged on behalf of the customer—whether he be the customer of a bank, a railroad, a utility, or merely a buyer of food and drugs.

"In this new movement, the packaging industry has a unique responsibility, because we provide the first point of contact between the producer and the ultimate user of his product. It is our task, as an industry, to find an effective method of explaining to consumers how packaging has made possible the great American system of mass production and distribution—how packaging has aided in safeguarding the community health—how packaging has insured both quality and quantity of goods—and how important a factor packaging has been in raising the American standard of living, which, despite the buffeting it has received, is still the highest standard of living in the world.

"If we keep these facts about packaging before consumers, and cooperate with all bonafide consumer groups, we need not be concerned about the subversive activities of 'experts and self-seekers' who exploit the consumer to serve their own selfish ends. Obviously, this task of consumer education is too large an assignment for any individual manufacturer to assume. It can be accomplished only by a federated organization such as the Packaging Institute.

"Your third immediate problem, and one which will undoubtedly be with us for many years to come, concerns standardization and research. I have in mind, first of all, standardization in qualifications of the men and women who design packages. With minimum requirements established for education background, apprenticeship, service, and other professional standards, the tyro designer would no longer be able to upset the entire packaging apple cart at the expense of production experts, machinery men, and suppliers.

"Greater standardization of packaging machinery and materials would also be a benefit for our industry. Standardization might well be extended to terms for selling machinery, installation charges, servicing policies of machinery manufacturers, guarantees and trade-in values, etc.

"Then, finally, there are obvious benefits to be derived through increased standardization of package sizes and designs. By standardization of packages I do not mean regimentation. But greater uniformity in certain specialized divisions of our industry, based upon an intelligent research program, would benefit every component group and every individual member of your Institute."

In the second day's session, members of the Institute were addressed by three speakers. (*Continued on page 64*)

5. The Speakers' table in a solemn moment. Left to right, G. P. Fuller, Dexter Folder Co.; Kendall D. Doble, Pneumatic Scale Corp., Ltd.; George Webber, Standard Brands, Inc.; Bert Martin, Shellmar Products Co.; Paul Gilfillan, Shellmar Products Co.; Carl Schaeffer, Stokes & Smith; Charles A. Breskin, Modern Packaging; Wm. M. Bristol, Jr., Bristol-Myers Co.; Carl M. Lambelet, New Jersey Machine Corp.; Harold M. Bowman, Unit Packages, Inc.; Helen L. Stratton, secretary Packaging Institute. **6.** Left to right, A. Q. Maisel, Modern Packaging; Stewart Ireys, Armstrong Cork Co.; Alan S. Cole, Modern Packaging; David S. Hopping, Celluloid Corp.; W. K. Woodruff, Celluloid Corp.; H. H. Jones, Kalamazoo Vegetable Parchment Co.

5 6

1. From a series of totally unrelated containers, the Baker set-up and folding box group has been converted into a family relationship making for ideal store display, presentations. Dealer convenience has been provided for in the identifying end labels. Tamper-proof seals protect the consumer.

2. The sharp contrast between the old and new metal cans is here strikingly demonstrated. Note how the can design is carried completely around the new container in spite of the necessity for including completely different legends on different faces of the container.

3. To provide for easy identification of the various canned products, variations in the bull's eye color pattern were utilized. These involved either no extra cost at all or an increase of less than 10 per cent where extra colors were called for.

REDESIGN OPENS OPPORTUNITIES

Baker & Co., Inc., sought to unify its line—but ended by improving its packages as well

Products designed for industrial or professional use present problems differing substantially from those encountered in planning consumer products and packages. Though the broad principles of package design and construction apply with equal emphasis to this field, they must be modified in consideration of the nature of the product, the manner in which it reaches the professional consumer and the way in which it is used by the latter. Particular interest therefore attaches to the newly developed family of packages, sponsored by Baker & Co., Inc., for the dental profession and the dental laboratory technician.

This company, like many another, had grown through the years and in the process had acquired not only a number of new products of its own development, but a number of others taken over through amalgamation with other firms. Its line, therefore, before redesign, presented a completely heterogeneous picture, utilizing a wide variety of boxes and cans of varying size, shape and design (if the latter term may be applied to packages decorated with a wide variety of ill-assorted type faces and rules).

The packages were not only lacking in their ability to capitalize upon family relationship, but might have been criticized with equal justification on a number of other grounds. They were not convenient for the dealer to handle or to stock. They were not tamper-proof and thus did not prevent substitution. They did not lend themselves to display and were not easily identified on stock shelves or in laboratory cabinets. An added factor, lending extra weight to the thesis that a complete redesign job was necessary, was found in the competitive situation where other suppliers serving the same field had, in recent years, redressed their line and thus served to emphasize by comparison, the ill-assorted appearance of the old packages.

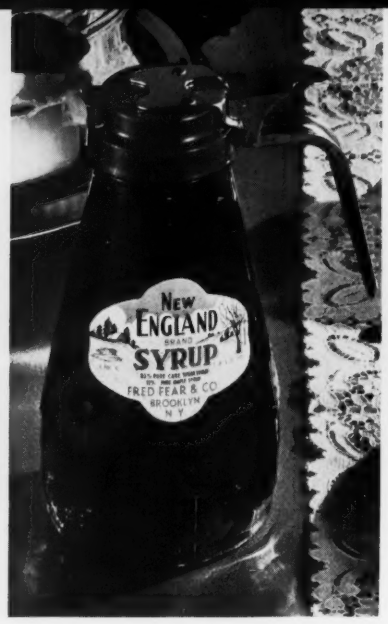
Fully cognizant of this situation, Baker & Co. have recently completed the production and presentation of a thoroughly redesigned series of packages, consisting of the basic set-up boxes and metal cans and including labels, assortment packages, jars and even corrugated shipping containers and shipping labels.

The first step in the design program involved setting up of classifications for products and the creation of a basic pattern which could be applied equally well to containers of differing types. This consisted of a broad red band surmounting a series of alternating red and white triangles with a bull's eye carrying the redesigned Baker trade mark. By emphasizing this trade mark, it was found possible to subordinate the various brand names of products, taken over from earlier companies, without abandoning completely these names which (*Continued on page 100*)

4. The old filling porcelain set was compact, but inconvenient in use and unattractive on display. The new hinged cover box provides receptacles for every item included in the set. Its outer design ties in with the basic Baker pattern and color scheme.

Packaging Pageant

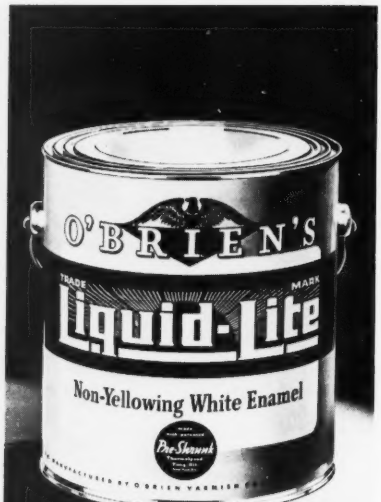
1



2

1. Here's a solution to that problem of how to keep the shaving brush clean and sanitary and yet to permit it to dry properly. Pro-phy-lac-tic Brush Company's Lather-King is presented in a plastic stand which holds the brush in a manner calculated to permit proper drying. A transparent cover protects the brush against dust and dirt, thus keeping it sanitary and ready for instant use.

3



4

2. Packers of table syrup have long recognized that a package, acceptable for direct use on the table, was a sales aid. Due to the viscosity of this type of product, housewives resent the waste that occurs in transferring syrup to a pitcher, then pouring the unused portion back into the original container. Fred Fear & Co. have, therefore, adopted a table syrup dispenser package, equipped with a special drip cut fitment closure. Each package of syrup thus arrives in the housewife's hand ready for table use. Container by the Owens-Illinois Glass Co. Closure by the Drip Cut Sales Co.

5

6

3. Blue Plate Foods, Inc., has adopted a new type of closure for its French dressing containers. The vapor-vacuum slip-on cap is said to be the perfect-in-use closure as it embodies an hermetic reseal after original opening and is easy to twist off and on in use. Closure by the White Cap Co.

4. The O'Brien Varnish Co., makers of Liquid-Lite non-yellowing white enamel, have adopted a new label for their product which effectively emphasizes the whiteness of the enamel contained within the can. A simple color scheme of gray, white and blue is employed—a white panel to feature the nature of the product, a gray background to lend strength to the design and a reverse logo on bright ultramarine blue to accent the white panel. Designed by E. E. Clarke of Advertising Artists, Inc. Label by the Theo. H. Schmidt division of U. S. Printing & Lithograph Co. Can by the American Can Co.

5. For the merchandising of their Digitos tablets, Sharp & Dohme selected Kimble Glass Co. vials with molded screw caps. The vial is admirably suited for the pack-

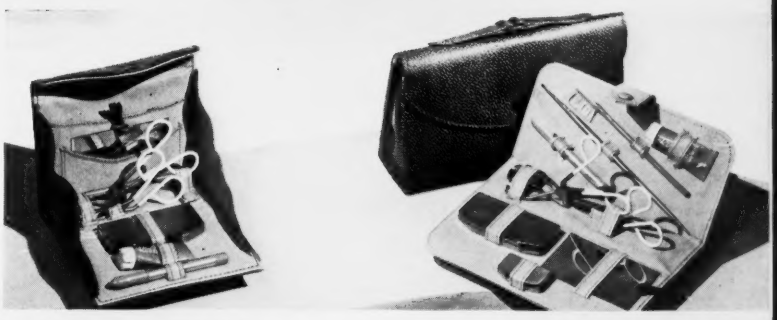
aging of this product on several counts—handy pocket size, air-tight and moisture-proof features and adaptability to labeling.

6. Few food manufacturers have availed themselves of price fixing, but the Federal Sweets & Biscuit Co. has the price printed on the carton, 29 cents for a box of 400 crackers. The poster-type design utilized together with the illustration which shows the type and shape of the cracker makes for quick identification of the product and fine legibility of the message on the carton from a considerable distance in the store.

7. The Aris Glove Co. has created a striking new cellophane container for its Merry Hull gloves. In envelope form, measuring 12 in. by 5 in., the container is clear cellophane on one side so that the consumer may see the gloves within, while the other side is printed in a terra cotta and black color combination. In the center, against a black background, is a half tone reproduction of the Aris-Merry Hull glove. The container would seem to be ideal for stock control and for safeguarding the freshness of the glove prior to sale. Envelope by Shellmar Products Co.

7

8. Two new eye beauty kits are offered by the Kurlash Co. to sell as gift items. To the left is the Purset, a compact travel kit made of leatherette, containing five essentials for eye make-up and grooming. To the right is the Metropole set, a kit likewise containing accessories for the care and make-up of the eyes. This kit features an inner section to which all the implements are fastened and which is removable for easy access to the contents.


8

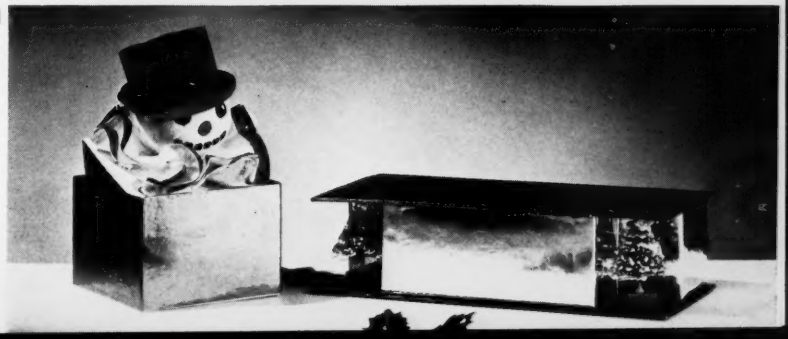
9. Olive oil in four bottle sizes and ripe olives in 7-oz. and 15-oz. jars are packed to do a competitive selling job and to identify themselves as a complete line in the mind of the consumer. The attractive and consistent design of all labels makes for greater display value and the design of the containers is simple and effective. Bottles, jars and bottle caps by the Hazel-Atlas Glass Co. Jar caps manufactured by the Phoenix Metal Cap Co.

9

10. A product designed to make bathing enjoyable is the Hollywood Bath-O'-Bubbles, a product of the Tripp Corp. Enough of the powder for one bath is provided in a small envelope container, the design of which indicates clearly the nature of the product contained within. A hinged lid set-up box, which is cellophane wrapped, holds a supply of 20 envelopes. The design motif of a fish and a stylized mermaid figure is planned to tie in with the nature of the product itself. Container by the Ace Paper Box Corp.

10

11. A jack-in-the-box and a Christmas house are two novelty containers, utilized by the Artcraft Silk Hosiery Mills, to give impetus to hosiery in gift promotions. At the left is the jack-in-the-box, a comic character in red and white perched on a red metallic foil box which holds one or two pairs of hosiery. At the right is the Christmas house, made of metallic foil paper with white trees and hinged lid. The box holds three to six pairs of hosiery.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Packaging Pageant

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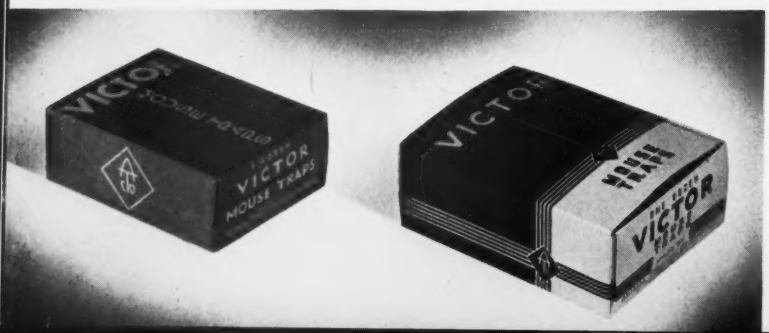

16

12. Old Velvet brand blended whiskey, a product of Frankfort Distilleries, Inc., reaches the market in containers designed to harmonize with the brand name. The label represents a colorful old velvet drape and the folds of the velvet are suggested in the graceful decorative festoons on the shoulders of the containers themselves. Bottles by the Owens-Illinois Glass Co.

13. Hardie's is shipping its jelly drops to its dealers in a container which serves as display as well as shipper. A die-cut panel lifts out of the top of the box to form an attractive "window" display for the candy. The panel is then tucked in between top and side wall to make a display card, with a place provided for price marking by the local dealer. An all-over linen pattern is utilized on the double-purpose container. Produced by The Hinde & Dauch Paper Co.

14. Though these packages are dainty to look at, they are sturdy enough to withstand the rigors of Christmas in the department store. The boxes are pink on the outside with blue linings and a Lumarith Protectoid inside overwrap makes additional gift wrapping unnecessary. Linen and lingerie tabs, known as Celotags, are ingeniously provided with the ribbons, thus increasing incentive to buy. Lumarith Celotags by the Celomat Co. Boxes by A. Dorfman & Co., Inc. Lumarith and Lumarith Protectoid are products of the Celluloid Corp.

15. Little girls like little bows—different ones for every costume. R. G. Buser, Inc., provides added incentive for purchase by placing its product on display cards incorporating colorful picture cards with embossed frames. Mothers are attracted by the varnished finish which makes these toy cards washable.

16. The Animal Trap Co. of America, engaged in the manufacture of mouse traps, has recently redesigned its package to achieve a more attractive appearance. The new carton, seen in the foreground, is a single color job—blue with reverse lettering—as is the old container executed in red with reverse lettering. The advantages achieved through replanning are, namely, better display effects and improved readability of the messages on the carton panels. Cartons supplied by the Simplex Paper Box Corp.

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MODERN PACKAGING

122 East 42nd Street

NEW YORK, N. Y.

FROM "PAINT SET" TO "PRODUCT"

Devoe & Raynolds have converted this once standardized item into a series of attractive products

An interesting new departure into the educational field has been made by the fine arts division of Devoe & Raynolds Co., Inc., with the introduction of six new art sets, designed by prominent educators. This merchandise, offered primarily for the Christmas gift season, delves into the fascinating fields of fashion, interior decorating, the commercial arts and education for younger children.

Each set is packaged in a sturdy set-up box with covers smartly designed and lithographed in brilliant colors. Three of the new sets are known as Devoe career sets, intended to stimulate talented young people of high school age and older toward interesting careers or hobbies. A water color outfit on fashion was designed by Helen Faith Keane of the Tobe-Coburn School for Fashion Careers. A second set is on interior decoration and was designed by Sherrill Whiton, director of the New York School of Interior Decoration. It includes seven maquettes—room plans and elevations—to be colored. A third career set provides instruction and guidance on work in the commercial arts. The set was designed by Anna L. Hilton, Grand Central Art School.

The three educational-fun art sets feature water coloring. Each is based on the sound educational idea that children learn best when each step of learning is fun. One set teaches the costumes, flags and flowers of eight European countries. Another features the natural resources of the United States and the third encourages creative handiwork. These sets were designed by Constance Smith and her associate Marion Eaton, art director in a New York City private school.

Credit: Boxes designed by Howard Brauns. Labels lithographed by Kindred, MacLean & Co., Inc.

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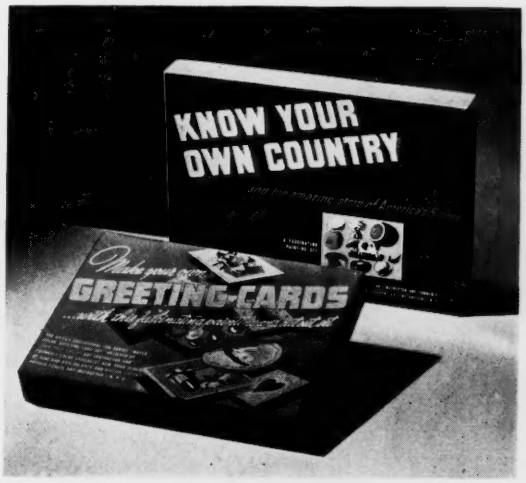

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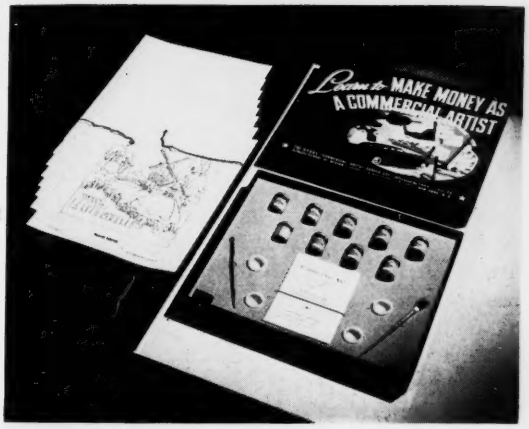

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1. Learning becomes fun with these paint sets which are so packaged as to earn counter display where children and adults can become acquainted with the new product. **2.** Jars of paint colors, brushes, mixing jars, instruction drawings, etc., are neatly held in the die-cut platform inserted in the base of the set-up box. Thus whether the box lid is removed or not, display presentation on the counter is strikingly effective. **3.** The poster-type treatment of the brilliantly colored lithographed labels on the boxes invites inspection of the products packaged within.

1

1. A colored lithographed label decorates the lid of this sturdy hexagonal shaped corrugated carton which has the dual purpose of functioning as the shipping container as well as the gift box for Valerie Jean California dates.

GIFT BOX PLANNED FOR MAILING

The Valerie Jean Date Shop solves shipping and gift problems through utilization of a corrugated carton

The Valerie Jean Date Shop, Thermal, Calif., date merchandisers, has gained for itself a reputation for fine California dates. They do an extensive mail order business and thus, when confronted with this year's gift packaging program, the company decided that a combination gift container and shipping box would be an answer to its present needs.

Ingenuity played a major role in the development of the package finally adopted. A corrugated carton was simply dressed up and, by virtue of its attractive appearance, stepped up into the gift class.

The hexagonal shaped corrugated carton is both sturdy enough to withstand rough handling in transit and is so lined as to protect the freshness of the dates. A white waxed liner covers the interior of the carton, thus making it more sanitary and likewise eliminating the added expense which would be involved if the carton were to be lined during the packing operation.

Sturdiness inherent in the corrugated material is reinforced through the use of a corrugated band which encircles the lid of the box. This band is stapled in place and bears the company name and address in reverse lettering. Additional protection for the easily flattened dates is achieved by corrugated overlaps which are a part of the six side walls of the container. These overlaps fold over the dates and protect those on the outer circle—the portion of the product most likely to be damaged during shipment. The scalloped overlaps likewise serve to increase the attractive appearance of the dates when the box is opened.

The carton is comparatively shallow so that the dates lining the bottom of the container do not become crushed and unappetizing in appearance. A further advantage achieved through the use of a shallow container is the facility with which the package may be packed.

To achieve the gift atmosphere, a lithographed label covers the top surface of the lid. In full color, a desert scene is depicted with the product name and the message, "From a desert oasis to you." The soft colors utilized on the label blend in nicely with the cocoa-brown color of the corrugated carton. The box is easily opened and re-closed, so that the recipient of the gift box of dates is likely to use the package so long as it contains some dates rather than to transfer the product to some other receptacle. Thus the Valerie Jean name is prominently displayed for all who like dates to remember where they can get a fresh supply.

On the store counter, the dressed up corrugated carton presents an appearance of attractiveness as well as seeming to hold more than its full complement of dates. The container is not deceptively constructed, but the shape and construction give the impression of large size.

Credit: Carton and label produced by the Schmidt Lithograph Co.

MORE SATISFACTION

Your Customer's Smile Is Worth a Lot to You . . .

Your product will be received with satisfaction, if it's delivered in an H & D shipping box. Reason No. 1 — Your product will be delivered in factory perfect condition. Package Engineering assures protection against every normal transportation hazard. Reason No. 2 — Your package will be attractive. H. & D's excellent color printing wins customer good will. Investigate this simple, economical way to change complaints to smiles . . . smiles of satisfaction that forecast better business for you.

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You'll get plenty of ideas from "IDEAS for Corrugated Shipping Boxes." Describes notable successes in the field of packaging. Free for the asking.

HINDE & DAUCH *AUTHORITY ON PACKAGING*

He's called a designer...but

ut confidentially, he's a juggler

You can't just sit down and *draw* a good package. First, you pin down every requirement your container must meet, from the time it's blown until it's thrown away. Then you must juggle and adjust until you have a package that satisfies every demand of producer, seller and user.

The designers in our Packaging Research Division are expert at this job.

They make production managers happy with glass containers that move through filling machines speedily . . . pack easily . . . ship economically. They design closures that fit package and product.

They turn glass containers into "show cases" that sell the contents . . . distinctive containers with display value which wins choice counter spots.

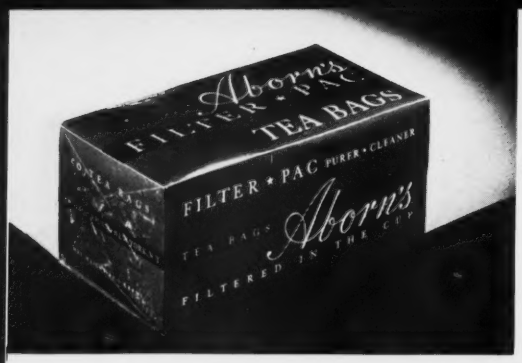
They design containers that please a customer's eyes . . . are handier to use . . . easier to open and reseal.

All these requirements are co-ordinated in Owens-Illinois glass containers, whether they are stock designs or made specially for you. That's why you can call an O-I salesman and know you are going to get a 100-per-cent packaging job. Owens-Illinois Glass Company, Toledo.

Three smart, modern O-I glass containers: The "Utilijar" is used for a wide variety of drug and dry chemical products. The Pinocchio Safedge Tumbler, decorated with characters from Walt Disney's new feature, is a sales-getting premium and food container. The redesigned Modernistic food jar is light in weight, straight-sided for speedier filling and provides large label space.

MPLETE PACKAGING SERVICE—CONTAINERS—TUMBLERS—CLOSURES—SHIPPING CARTONS

OWENS-ILLINOIS
GLASS COMPANY
First in Glass



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1. Blue ribbon winner in the carton classification is the Aborn's cellophane wrapped carton. **2.** The Phoenix vacuum can was judged a winner in the can and the redesign groups. **3.** Prize winner in the combination group is this family of products.

PROGRESS IN COFFEE PACKAGING

The "Spice Mill" Competition demonstrates advances in package design in the coffee, tea and spice fields

There were 18 ribbon winners in this year's "Spice Mill" Packaging Competition. Blue ribbons were awarded to individual or group entries found to be outstanding examples of good packaging in bags, cans, cartons, glass and special materials. Brown ribbons were awarded to packages exemplifying some special merit in the field of original design, quality appeal or excellence in use of a particular material. The blue ribbon winners are illustrated on these pages.

The Embassy coffee bag, manufactured by Benj. C. Betner Co., won the blue ribbon award in the bag classification. Gold lettering against a rich navy blue ground, surmounted by an aristocratic crest, emphasize the quality merchandise marketed by Penn Fruit Co.

Coffee bags, manufactured by Thos. M. Royal & Co. for Thomas Coffee Co., won a blue ribbon for bags in the family group classification. The brands, Mokay, Hillcrest and Win, each represent a different quality of coffee. Mokay is packaged in a maroon bag banded in black and gold. Win brand is packed in an aluminum colored bag banded in black and red. The Hillcrest bag is a bright glossy yellow banded in black. *(Continued on page 110)*

4. Three brands of coffee which are similarly designed but utilize different color schemes. **5.** A blue ribbon to this Altman slip-top can. **6.** The Embassy bag is designed to emphasize the quality merchandise contained within.

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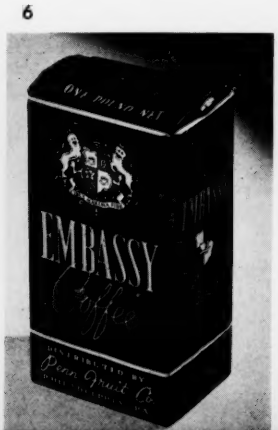

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Note how the offset top fits in the recessed bottom.
Let us design your package to fit your product.
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FLOWERS OF SULFUR
EPSOM SALT
ALUM POWDER
BORAX
BORIC ACID POWDER
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SEFTON FIBRE CAN COMPANY

Plants—St. Louis, Missouri • New Iberia, Louisiana

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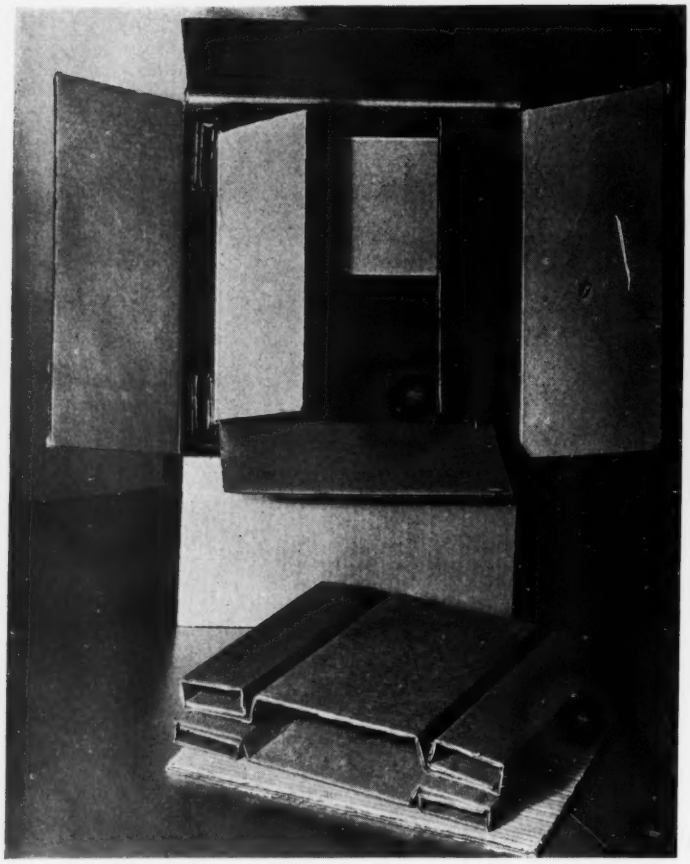

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1. Airport attendants handling one of the new dry ice cartons developed for the Pitman-Moore Co., Indianapolis pharmaceutical chemists, to insure safe shipment of vaccines and other biological products. The carton maintains an even temperature of from 32 deg. to 42 deg. for several thousand miles by either air or rail. **2.** Details of the construction of the dual carton are here clearly seen. The inner carton holds the product, with the dry ice held in a bunker formed by scored and bent corrugated sheets directly above the merchandise. Air space for circulation of ice fumes can be seen on all sides of the inner carton.

AND NOW—THE "FLYING ICEBOX"

New double shipping container uses dry ice to protect vaccines and other perishable biological products

A new type of refrigerator carton to facilitate safe as well as speedy handling of serums, vaccines and other perishable biological products has recently been developed. The new carton, which allows the product to be packed with dry ice, was designed to meet the needs of Pitman-Moore Co. of Indianapolis and already has been placed in use in the shipping of animal vaccines.

In this carton, biologicals can be shipped by express to any part of the United States at a constant temperature of from 32 deg. to 42 deg. The unit carries a maximum of three pounds of dry ice, sufficient to maintain low temperature to destinations several thousand miles away.

The dry ice is first wrapped in heavy kraft paper and then placed in a bunker at the top of the carton. The product itself is carried in an inner shell, with air space on all sides to allow circulation of the fumes from the dry ice. The inner carton is suspended by pads at the top, bottom and corners.

It has been found that the temperature in the walls of the carton may go as low as 28 deg. or 30 deg., but that the inner carton prevents a freezing temperature around the product itself.

The Pitman-Moore refrigerator carton was developed, after considerable experiment, as the result of the need for shipping freezable biological products packed in dry ice in such a manner as to eliminate any risk of their being frozen en route. It consists of an inner container in which the product is packed. This sets in an outer carton so as to be completely surrounded by air spaces.

Several test shipments to the Pacific Coast demonstrated the efficiency of the carton before it was finally approved. It was used, it is reported, on a large number of the shipments throughout the intense heat of the past summer with unfailing good results.

Credit: Carton developed and manufactured by Container Corporation of America.

TEN NEW SALESMEN FOR YOU

GULLIVER *Tumblers*

(READY NOW!)

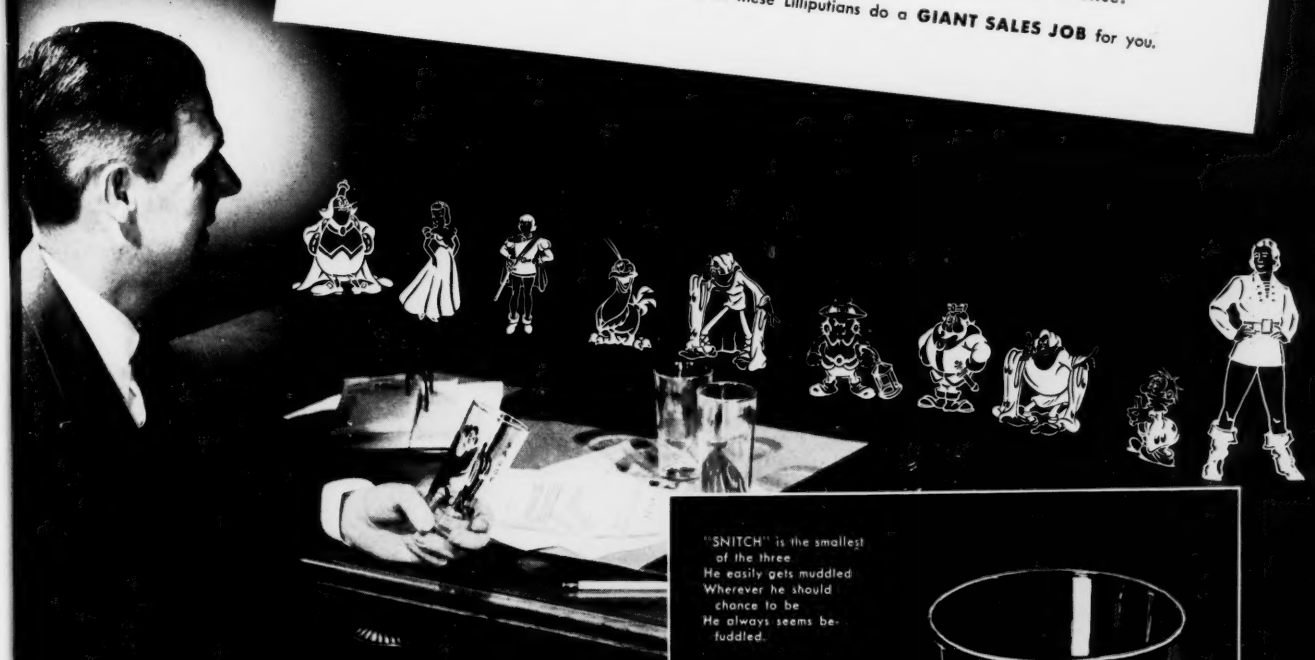
Ten tumblers, each with a charming character from Paramount's new technicolor cartoon, GULLIVER'S TRAVELS, each character in its own distinctive color, with a delightful descriptive verse on the reverse side.

Think what this means to you!

Paramount is spending $250,000 in national advertising in Liberty, Saturday Evening Post, Collier's, Life, Look, Newsweek and Good Housekeeping, to tell the story of this great cartoon classic, produced by Max Fleischer and directed by Dave Fleischer. You'll hear the songs, which will be sung in the picture by Lanny Ross and Jessica Dragonette, on the radio any day now. The picture will have its world premier Christmas week and national release immediately after.

Cash in on all this advance publicity. Be prepared when the great picture breaks. Plan to use Gulliver Tumblers at once.

Whether for premiums, re-use or resale, let these Lilliputians do a **GIANT SALES JOB** for you.



"SNITCH" is the smallest
of the three
He easily gets muddled
Wherever he should
chance to be
He always seems be-
fuddled.

Gulliver Tumblers are available in all stock sizes and in any size in reasonable quantities. Wire for information and samples.

HAZEL-ATLAS GLASS COMPANY
WHEELING, W. VA.

More on Stamp Plan

Selection of Allentown, Bethlehem, Pennsylvania and Salt Lake County (including the City of Salt Lake, Utah) as areas in which the Food Order Stamp Plan will be put into operation, has been announced by Secretary of Agriculture, Henry A. Wallace.

Speaking before the Sixth Annual Meeting of the National Association of Food Chains, in Chicago on October 10, Milo Perkins, president of the Federal Surplus Commodities Corporation—which initiated the Food Stamp Plan—discussed in some detail the agricultural aspects of the plan's operation. Mr. Perkins said in part: "The mechanical operations of the Stamp Plan are well known to all of you. The project has received splendid support from all branches of the food trades, from farm organizations, from local chambers of commerce, from public and welfare officials in the various states, and from the persons using the stamps to secure an additional two and one-half cents worth of surplus foods a meal for each member of the family. This is in addition to the average of five cents a meal which such persons previously were spending for food. A gradual expansion of this program already has been announced by the Secretary of Agriculture.

"It is too early to draw final conclusions as to the ultimate agricultural significance of this method of distributing surplus commodities. The preliminary figures now available, however, are of great interest to every farmer in America. First of all, we can see how persons getting public aid are using their blue stamps on a wholly voluntary basis.

"Based upon our experience to date, it appears that about one-quarter of the stamps are being used for butter and another one-quarter for eggs, two products which are produced very widely on our farms. About 10 per cent of the added purchasing power is being used for wheat products. Approximately 31 per cent is being divided among the fresh fruits and vegetables, according to the consumer's selection and the commodities which have been on the list thus far. Corn meal, rice, dry beans, and dried prunes are each receiving over 2 per cent of the blue stamp expenditure as a result of the new buying by needy families.

"We can speculate on the possible agricultural significance of the Stamp Plan if it were operating upon a national basis. In other words, let us project the increased market for surplus commodities which might exist if the program were in operation throughout the country—if every eligible family bought the same percentage of surplus foods as those which were purchased in five cities for a few months, and if participation of eligible families throughout the nation were upon the same basis as that in a few experimental cities. The term "eligible families," as used here, refers to those now receiving some form of public assistance and does not include low-income, privately employed persons such as those in Shawnee, Oklahoma, who now are participating in the Stamp Plan in that one city upon a wholly experimental basis.

"About 20 million people are included in the total number of families which are now receiving some form of public aid. If the same percentage of persons took part in a national program as has been the case in the experimental cities, the group of participating eligibles would include about 15 million individuals. This does not necessarily mean that we are currently planning to have the Stamp Plan extended to that many people, however. Many factors will influence the extent to which the plan can be expanded. As an illustration, we do not believe that it is wise administratively to think in terms of reaching the entire relief load in anything short of two or three years even if other circumstances made it desirable to do so. By that time, of course, the size of the relief load may have changed considerably.

"On the basis of the foregoing assumptions, it is interesting to note that the Stamp Plan offers a potential annual market for over 300 million pounds of butter, about 352 million dozen eggs, over 25 million bushels of wheat in the form of flour, over 6 million bushels of corn in the form of corn meal, about 140 million pounds of rice, over 87 million pounds of prunes and about 227 million pounds of dry beans. For fresh fruits and vegetables there is a tremendous potential market. Given purchasing power, poor people will buy trainload after trainload of citrus, tomatoes, cabbage, peaches and other fruits and vegetables.

"From an agricultural point of view, these figures have great significance. The Stamp Plan makes possible a

"No, thanks! I'll try another brand!"

One-time consumers are the problem of every packer. They buy a product once and then switch to another brand. But thousands of these "one-timers" have a good reason for switching. The quality of the product impaired by poor sealing, the label stained by leakage, or the cap hard to remove. When these things are encountered, the consumer simply stops buying—but she never tells the manufacturer why. ♦ The importance of the right closure cannot be over-emphasized. That's why Crown Closures are increasingly in demand. They are designed to *win* and *hold* the approval of consumers.

CROWN CORK AND SEAL COMPANY

World's Largest Makers of Closures for Glass Containers

BALTIMORE, MARYLAND

IN THE LONG RUN—

CROWN CLOSURES

COST LESS

CCS

SCREW CAPS
MASON CAPS
VPO CAPS
VACUUM CAPS
DOUBLE SHELL CAPS
CAPPING MACHINERY
LUG CAPS
CROWNS

much broader market for farmers producing those commodities for which there is an elastic demand, such as dairy products, poultry products, fruits, and vegetable. The early figures indicating sharp increases in the consumption of rice and beans give a more hopeful picture than we anticipated. This wider distribution will do more than provide a new market for surpluses; ultimately, it can bring about a better price level for an entire crop, especially in the case of those commodities which happen to be selling very much below parity."

Earlier doubts as to the practical workings of the Food Stamp Plan seem to have been allayed and the plan has not only met with a wide endorsement of food trade figures, farm spokesmen and the stamp recipients, but has developed a widespread clamor on the part of relief officials and city and state authorities for its extension to new districts.

The Packaging Industries quite naturally look with favor upon this development since it brings the recipients of government relief once again into the general market through which packaged goods must move and out of the special category in which they formerly stood as recipients of government distributors foods. Not only is the quantity and quality of relief family food consumption substantially increased through the Food Stamp Plan but these products are now packaged and branded, distributed and sold in a fashion identical to that of products reaching the non-relief family. Thus passage from relief to non-relief status will not find the housewife completely unacquainted with packaged goods branded merchandise and retail sale methods.

Food Standards Committee

The Food Standards Committee will meet in Washington, D. C., beginning November 8, 1939, in the offices of the Food and Drug Administration, to consider definitions and standards of identity under the Federal Food, Drug, and Cosmetic Act for the following products: Ice cream, grape juice, orange juice, concentrated orange juice, grape fruit juice, macaroni, noodles, it has been announced by the Department of Agriculture.

Factual and other pertinent information on these food products will be considered by the committee. For the purpose of conserving time it is desirable that all such information so far as practicable be submitted in writing, addressed to the Secretary, Food Standards Committee, Food and Drug Administration, U. S. Department of Agriculture, Washington, D. C. In addition to consideration of written communications the committee within the limits of time at its disposal will hear interested parties who wish to present information about these products. All appearances should be arranged for in advance of the meeting by appointment with the Secretary of the committee.

The committee believes that ice cream is sufficiently important to warrant extension of the time ordinarily given to those who appear before the committee and has arranged for attendance of anyone (including the manufacturer as well as regulatory officials and the consumer), who has any interest in the formulation of standards for ice cream. This invitation is extended to all; no specific appointment need be made. The meeting will take place on Thursday, November 16, 9:30 A. M., in Room 1039 South Building, U. S. Department of Agriculture, Washington D. C.

This open meeting of the Food Standards Committee is in no sense the public hearing required by the Food, Drug and Cosmetic Act, and for which formal notices are issued by the Secretary of Agriculture; but is for the purpose of informally acquiring information concerning those features which should be embodied in proposals for discussion at the public hearing to be held later.

New York City Drug Bill

A struggle over the proposed New York City Food and Drug Bill granting extremely broad powers to the Board of Health, is expected to develop with particular intensity in the future. Since passage of this bill may not only lead to complication to the Food and Drug Industries in the largest city in the country but might be expected to result in the passage of similar ordinances in many other communities.

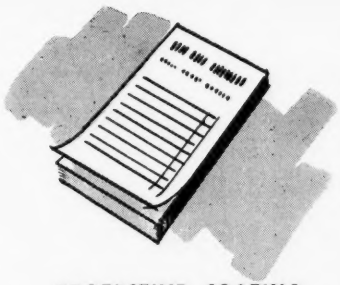
The bill, it is reported, would require annual registration of every drug and cosmetic product at a fee of $10.00 per product per year. This provision was argued at a city council here September 28 and was referred to the corporation council for an opinion as to whether the city council may give this and other sweeping powers to the Board of Health without first amending the board's charter.

The bill, it is further reported, would require both qualitative and quantitative formulae disclosure. Other provisions of the bill called for the creation of a Consumers Bureau in the Department of Health and authorized publication of a monthly bulletin in which names and addresses of offenders would be listed. The department would be authorized to investigate scientific problems and would be instructed to publish and distribute, free of charge, information to protect the consumer against injury or deception.

Manufacturers would be required to file the exact text of every judgment, decree, order or stipulation relating to such product entered or issued by any court of the United States, any state court, the U. S. Food and Drug Administration, the Federal Trade Commission, or any other governmental agency of the U. S., or any state or city thereof; a statement of all the beneficial effects claimed, together with satisfactory evidence or authority in support of such claims.

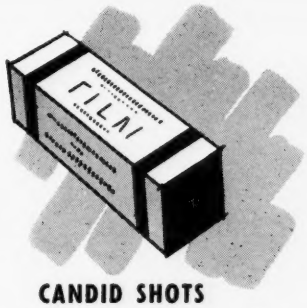
Effects of A & P Decision

In a recent decision on a case brought by the Federal Trade Commission against the Great Atlantic and Pacific Tea Company, the Federal Circuit Court of Appeals has issued a decision supporting the Federal Trade Commission and going further in this support than had been generally expected. The decision (*Continued on page 110*)



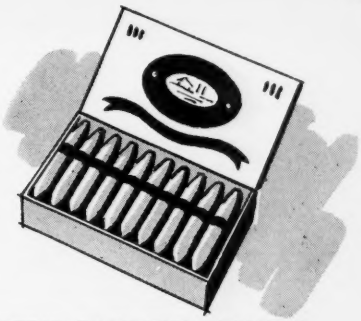
PROTECTIVE COATING

A clever application to disclose any erasure on the stock, particularly valuable in combating check changing.



CANDID SHOTS

Famous to millions, one of the first and best known of folding cartons is the bright little film box.



BETTER THAN THE ORIGINAL

Designed to be easy to ship and to save money—this new display idea is a worthy entry in its field.

The Price of Experience

HASN'T GONE UP

Experienced minds and hands smooth the path for Ridgelo clay coated orders—through schedules, formulae, testing, checking. "This coating must rub *off* under certain conditions. This board must emboss and *not crack* after six color printing and varnishing. This coating must *never* fade." In the satisfactory delivery of all such specifications Ridgelo experience is vital. It's the guardian of your coated board orders—and *costs no more today!*

May we have your inquiries?

Ridgelo
CLAY COATED
BOXBOARDS

MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

Representatives: E. C. Collins, Baltimore • Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago
H. B. Royce, Detroit • Zellerbach Paper Company, Pacific Coast • A. E. Kellogg, St. Louis

1. The plaid design which forms a background for the full-color reproduction on the front face of the container is carried completely around the wrap. Data and illustrations on side and rear faces are placed upon panels for greater readability. The "flour basket," utilizing the same plaid pattern, presents the three varieties of flour as an attractive introductory sale unit.

OUT OF THE FLOUR SACK

and into attractive tight-wrapped cartons steps Centennial Flouring Mills Co. household size flour

When the Centennial Flouring Mills Co., operator of flour mills in the state of Washington, decided to animate its extensive cereal line with repackaging, it began with the product which is traditionally identified with the imprinted muslin sack—family flour.

Centennial's family flour in the larger units—10 lbs., 24 lbs., 49 lbs. and 98 lbs.—is still sacked, but the $2\frac{1}{2}$ lb. size, which is popular with the city housewife, is now glorified with a handy box container.

The innovation in packaging all-purpose flour not only makes it more handy for the housewife, but it strengthens the kinship of this product, acknowledged to be a leader in the Centennial line, with its entire family of cereal products. Pancake and waffle flour and cake flour were introduced in new package dress coincidentally with the family flour, and the plan is being carried through of using a common plaid design for the entire line, but individualizing (*Continued on page 108*)

2. The baskets as used in mass display are surmounted by a display panel explaining the offer and presenting its price.

For that EXCEPTIONAL *packaging job. . .*

HERE ARE SIX PACKAGES of widely different design. Each is perfectly adapted to the job every package should do—*protect* merchandise completely, yet *display* it attractively. And each is made with the same versatile packaging material—*Eastman Acetate Sheet.*

This crystal-clear sheeting is a natural choice for packaging products that are sold on eye-appeal. It can be readily combined with other materials, or used alone. All packaging operations—folding, cementing, molding, or drawing—are easily performed on *Eastman Acetate Sheet.* It will not crack or shatter, and it takes printing inks without wrinkling.

Eastman Acetate Sheet is furnished in six thicknesses, from .003″ to .020″; in rolls of any convenient length and up to 40″ in width, and in standard- and cut-to-size sheets. Generous working samples and technical information will be supplied on request. . . . Eastman Kodak Company, *Chemical Sales Division*, Rochester, N. Y.

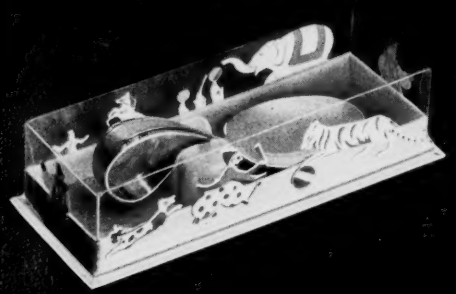
EASTMAN ACETATE SHEET

APPEALS

DISPLAYS

SELLS

NOVELTY BOX for child's spoon—solid bottom; transparent cover of *Eastman Acetate Sheet*, printed in colors.



TRANSPARENT PACKAGE for bath salts—solid top and bottom; transparent body of *Eastman Acetate Sheet*, with the name and a design printed in color.

SPLAY-TOP CONTAINER for military brush set—solid sides d bottom; transparent cover of *Eastman Acetate Sheet.*

WORKABILITY of *Eastman Acetate Sheet* is demonstrated by these three boxes. It may be easily folded, drawn, molded, cemented . . . takes printing without wrinkling. When used alone, it makes sturdy containers.

PACKAGING INSTITUTE CONVENES

(*Continued from page 43*)

Arthur B. Erekson, Director of Research of the Lakeshire Cheese Division, The Borden Co., spoke on "The Consumer Looks at Old Products In New Packaging Materials," discussing in detail a number of the more recent developments in dairy product merchandising and particularly cheese merchandising which had come about as a result of research and development work in the materials field.

J. O. Clarke, Chief of the Central District of the Food and Drug Administration, stated the attitude of the Administration towards the problems of the packager and expressed the warmest approval of the cooperative attitude which had been expressed on the part of the Packaging Institute. Mr. Clarke said in part: "I would not be fair to myself or with you if I should say that complete compliance with the Food, Drug and Cosmetic Act is simple and can be accomplished merely through a desire to comply with the law and with a minimum of effort in studying its provisions. The marketing of foods, drugs and cosmetics is a complicated business. Manufacturing processes are frequently complex and involved. Distribution presents its own problems and sales and promotion require the exercise of business ability of a high order. Necessarily any legislative edict controlling the marketing of these products will also be complicated and difficult to apply. You gentlemen, however, represent business firms who have successfully overcome the difficulties involved in the establishment of a successful, complex, business enterprise. You have solved the problems involving production, distribution, and sale, which are probably more complex than the general problem of bringing these products into compliance with the Food, Drug and Cosmetic law. You have expressed, through your president, a willingness to achieve this end. While the problem is admittedly complex, with the willingness you have shown and the ability you have demonstrated, you should have comparatively little difficulty.

"The Food, Drug and Cosmetic Act itself provides the guide which the Food and Drug Administration must follow in carrying out the provisions of the law. Our natural aim is not to penalize unnecessarily any individual or any industry. The law itself, however, provides the method of enforcement through injunction proceedings, seizures, prosecutions, warning in minor offenses, and other means. It is our sworn duty to enforce the law through the methods prescribed in its text. Naturally, if a firm or an individual voluntarily brings its products into compliance with the law, we have no enforcement problem with respect to that firm or industry. It is, therefore, to our advantage and to the advantage of the industry to bring about as complete a compliance with the law as possible without the necessity for applying the remedies provided in the statute.

"The Food, Drug and Cosmetic Act, with respect to foods, drugs and cosmetics, makes a general requirement that all three classes of products are misbranded if the container is so made, formed or filled as to be misleading. Unquestionably, this provision was written into the law in recognition of consumer habit of considering the package to indicate the amount of contents and to control the use of packages which, in themselves and without respect to label, may be misleading. In interpreting this section of the law the Food and Drug Administration again must look at the product through the eyes of the consumer.

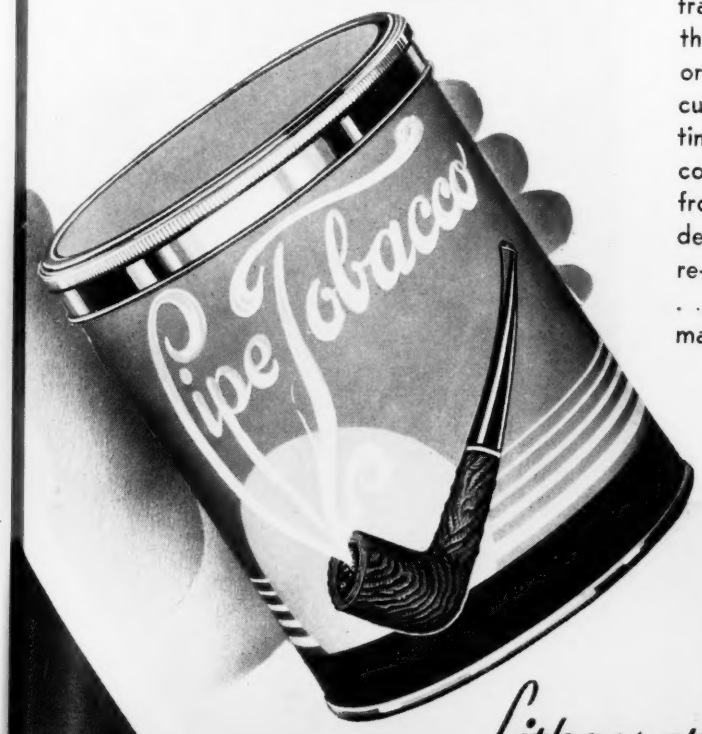
(*Continued on page 106*)

7. Left to right, K. T. Krantz, Colgate-Palmolive-Peet Co.; P. C. Muskat, Triangle Package Machinery Co.; M. McFaull, Standard-Knapp Corp.; E. W. Love, Bristol-Myers Co. **8.** Left to right, Thomas C. Kelly, Thomas C. Kelly Co.; Herbert Leonard, Consolidated Packaging Machinery Co.; M. Derrico, Union Bag & Paper Corp.; D. W. Shelhammer, Union Bag & Paper Corp.

7

8

PUT MY PRODUCT OUT IN FRONT...SEZ YOU..



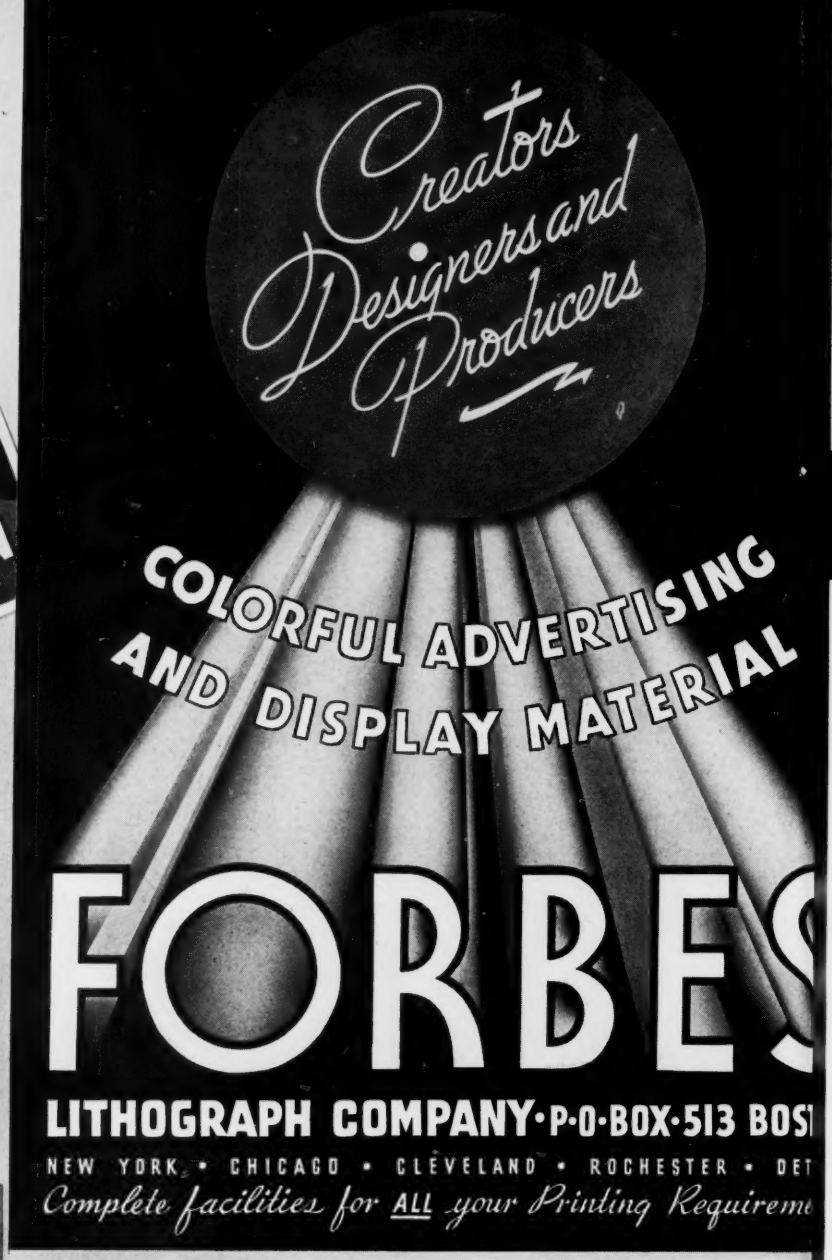
The retailer who sells your product is a contrary cuss. He puts the package "out-in-front" that attracts his eye . . . that makes his shelves or window display colorful and attractive to his customers. Heekin Lithography on metal . . . tin cans of all shapes and sizes dressed up in colors . . . will help get your product "out-in-front" in store displays. Heekin experts in design and color arrangement will help you re-style your old package or create a new one . . . and Heekin Lithographed containers are made of colors that last.

THE HEEKIN CAN CO.
CINCINNATI, OHIO

heekin cans

Lithographed WITH HARMONIZED COLORS

FOR WINTER PROTECTION
CHAMPION
PATENTED
INSTALL NEW
CHAMPION
SPARK PLUGS
A BIG HELP TO HEALTH!
Sunkist


Creators Designers and Producers
COLORFUL ADVERTISING AND DISPLAY MATERIAL
FORBES
LITHOGRAPH COMPANY · P·O·BOX·513 BOST
NEW YORK · CHICAGO · CLEVELAND · ROCHESTER · DET
Complete facilities for ALL your Printing Requirem

Johnson & Johnson
RED CROSS PRODUCTS
FIRST AID NEEDS
BANDAGE · GAUZE · COTTON · ADHESIVE TAPE · BAND AID

DATED!
Look for the DATE LINE
EVEREADY
FLASHLIGHT
BATTERIES
The DATE LINE
Shows They're FRESH
EVEREADY

MODERN DISPLAY

1. The Schick display involves the use of light and motion, while the N.C.B. unit utilizes edge-lighting. The "Light" display letters are cut from cast acrylic sheet illuminated by edge-lighting to provide a unique luminous effect. The Rheingold sign utilizes three-dimensional letters of cast resin.

PLASTICS AS DISPLAY MATERIALS

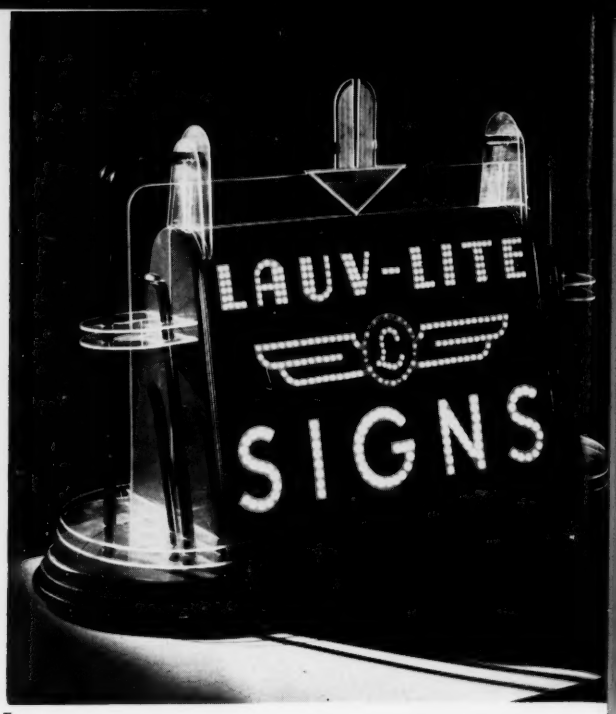
The older qualities for which plastics have long been known combine with new methods of light transmission to achieve attention-getting values

Since the early days of plastic molding, plastic materials have been utilized in display manufacture. They were relatively easy to form into intricate shapes, they were attractive and sturdy, they did not show wear, they could be easily cleaned. In short, they had many of the mechanical qualities which justified their use as an alternative material where wood or metal or pressed pulp had formerly been used.

As such, plastics have achieved a very wide usage, particularly on counter display units, such as change makers, where the relatively high cost of the plastic raw material is counterbalanced by the low cost of the plastic molding method, to permit the production in quantities of such units at figures better-than-competitive with those of previously used materials. Plastics have also been widely used on demonstrator displays as models and in other forms where the intricacy of shape desired led purchasers inevitably to a molding material.

These uses, however, arise because of qualities in the plastic materials which compete with similar or identical

2



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qualities in possible alternative materials. Within the last few years—and particularly within the last twelve-month—attention has been paid to another set of plastic qualities. These, when applied to display, have produced definitely new types of display fixtures, types which have attention-getting values formerly unattainable.

What are some of these qualities? Most of them involve the use of light. Edge-lighting of plastics has been discovered to provide remarkable effects. Translucent plastics likewise can be utilized to achieve startling effects and plastic prisms or light collectors have brought back the "dot" type of sign in a new form offering many design possibilities which had been more or less forgotten since the electric bulb began to be replaced by the neon tube in spectacular display lighting.

Translucent materials, jigsawed or molded, are used as sign backgrounds or for sign lettering. Set into molded plastic frames and enclosing lights, these form permanent luminous signs of a type not heretofore available. A newer development involves the use of light boxes, of either metal or molded plastics, slotted for the insertion of a transparent panel. These panels, etched or engraved and with color wipe-ins, are then edge-lighted, the engraved portion of the sign catching the light as it rises from the slot in the light box and providing unique luminous effects of a highly attractive and unique nature.

Heavy transparent acetate sheets in water white or

2–3. Fluorescent acetate sheets with a glowing edge were cut and assembled into these two attractive window displays. **4.** Three molded translucent urea parts provide a colorful frame for the Krueger beer sign. **5.** The Lauv-Lite light box is punctured with numerous small holes into which are inserted colored plastic plugs which are illuminated to achieve attractive effects. Edge-lighting is likewise utilized here.

colors are cut into attractive shapes to form window display units. These, when illuminated by spotlighting, likewise produce luminous reflections of a novel, eye-catching character.

Another type of sign, known as the Lauv-Lite, utilizes the light box punctured with numerous small holes into which are inserted colored plastic plugs. These catch the light inside of the box and carry it to the outer surface where they glow like individual electric bulbs. By arrangement of color plugs, extremely attractive effects can be obtained and the power consumption is held to a low point since a single bulb is sufficient to light numerous miniature prisms. In many cases, signs of this sort are used in conjunction with edge-lighting, plastic panels being inserted into slots in the light box to create the edge-lighted effects.

Another form of edge-lighting involves the use of jig-sawed letters (molded letters could be used where the quantity is justified) set in a line into a slot of a light box which forms the base of a fixture. Here the transparent letters become outlined in light and still permit a view of the merchandise which may be located behind the sign. Signs of this type have the advantage of interchangeability, since one letter, or set of letters, may be substituted for another at will.

Plastics, capable of internal light reflection, offer new display possibilities because they permit the use of a single light source and the transmission of the light through the plastic "pipe" to numerous points.

Most of the newer plastic displays utilize a combination of these latest light transmitting qualities with the older qualities for which plastics have long been known. Thus, without any sacrifice of sturdiness, wear resistance or attractive coloring, plastic displays now offer novel effects as well. A significant point in their favor is found in their ease of fabrication, both in small numbers and under mass production. Because such plastic signs can be molded from sheet, tube and rod stock, it is possible for the designer to experiment with one or a few signs. When, however, it is decided to utilize a given model in quantity, the same sign may be produced in multiple by mass production methods at relatively low production cost.

Credit: Schick display made *(Continued on page 108)*

6. A cleverly designed display unit for lipsticks executed in metal and molded plastic. **7.** Embossed lettering in color is printed on the Beech-Nut Beechies display rack, the ash tray and two jars. **8.** The Eagle Lock Co. screw display case is molded of black phenolic on which all sizes and shapes of heads and thicknesses of screws are attached. A glass-front panel is utilized. The Topps chewing gum display stand is made of phenolic plastic with a metal etched plate.

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Display

1

1. The Millers Falls Co. wasn't designing a pipe organ, though that is what the Tuf-Flex hack saw blade merchandiser resembles. Each "pipe," plainly marked with type and size of blade, holds a dozen of the blades and thus makes it easy for the customer to select the right sizes quickly without bothering the sales clerk. Intelligently planned for long life, the unit is made of wood and is finished in bright colors of yellow, red and silver. The merchandiser, occupying but a small area of counter space, holds a good supply of stock and thus solves, to a certain degree, dealer storage headaches.

2

2. The annual Soap Box Derby has increased interest in the building as well as in the racing of motorless cars. Quick to recognize this growing interest, the Firestone Tire & Rubber Co. has placed on the market the Firestone racing wheel set, a complete set of wheels and axles. The container is so planned as to serve both as shipping case and display box. Die-cut slots in the back and front inner walls of the box hold the wheels firmly for shipment and, when on display, permit a full view of each piece in the set. The shipping-display container is made of corrugated board and gains much of its attractiveness from the use of a red liner and two color printing. Designed and manufactured by The Ohio Boxboard Co.

3

3. The Ingersoll-Waterbury Co. is offering dealers a combination watch and clock display which permits presentation of a variety of Ingersoll products. The framework of the case and the pillars are made of wood which is covered with a plastic material, thus making for a sparkling finish and achieving a unit which may be kept bright and clean. Pocket watches are hung on hooks while the wrist watches are strapped around a pillar provided with slots to hold the bands. Three clocks are positioned on wooden shelves. Designed and manufactured by A. G. Lopez & Associates.

4

4. King Francis I, patronage of the silversmith craft, is portrayed realistically in Reed and Barton's new window display, featuring their Francis First pattern in sterling silver. The court scene, depicting a master craftsman presenting a silver chalice to the monarch, is developed in wood, lacquered in white, built up in several planes, with six round columns supporting the structure. The top shield and scroll are finished in gold, red and white lacquers. Red velvet is used on the steps, blue translucent Lumarith for the windows with illumination from behind, and the cut-out figures are finished in seven colors. The figure depicting the silversmith holds an actual small silver dish. A parchment paper scroll carries the story behind the pattern. Designed and manufactured by Kay Displays, Inc.

Gallery

5. The Bond Electric Corp. has taken its flashlights off crowded counters and placed them on the more available floor space. The floor stand occupies but 2 sq. ft. of floor space, yet holds 14 flashlights in easily seen positions, with space provided for the insertion of price. The top of the unit has a section for the displaying and featuring of 48 batteries and 60 miniature Mazda lamps. In the rear of the display is a storage space for extra batteries, bulbs and flashlights. In this same compartment the dealer can store his empty cartons for the flashlights which he is displaying. The top display panel is reversible, the Santa Claus design being used only for the Christmas holidays. A year-round message is found on the reverse side. Manufactured by the Rex Window and Advertising Co.

5

6. George Wiedemann Brewery has reproduced an old lithograph originally made in 1895. The reproduction is presented in the form of a picture, the frame being of wood which protects the edge of the sheet and also strengthens the display. The outstanding feature of this display is the transparent plastic material with which the lithographed sheet has been covered. It is perfectly adhered to the lithograph and thus no dust or dirt can get between the plastic and the reproduction. The coating looks like a glass covering and is said to be water- and alcohol-proof, making for long life. Produced by The Strobridge Lithographing Co.

6

7. Three small bottles of Irresistible perfume are held in this compact plastic display stand. The unit is available in colorful combinations of red, green, ivory and black. Not only does the plastic unit provide an attractive display for store counter use, but it would seem to serve as an attractive unit on the dressing table. An additional advantage is found in the fact that an increase in the unit sale may be had since the stand can only be purchased with its full complement of perfume bottles. Molded of Tenite by the Boonton Molding Co.

7

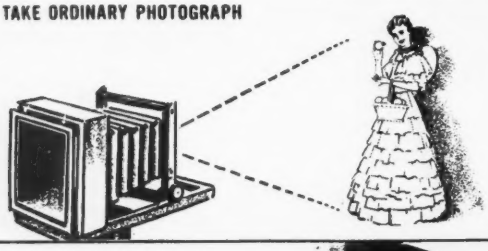
8. Dramatization of a slogan is the effect which Calvert Distillers Corp. has achieved in this newest display for its Old Drum brand blended whiskey. The slogan has been advertised in magazines and newspapers over the past year and a half and now once again makes its appearance upon the face of this large map of the United States. Suspended in the air above the map is a large observation balloon from which a quart bottle of Old Drum whiskey is hung, creating an illusion of a balloon flying over the country. The two side pieces which accompany the display can be used for counter and back bar displays, as well as for the window. Lithographed in eight colors by the Niagara Lithograph Co.

8

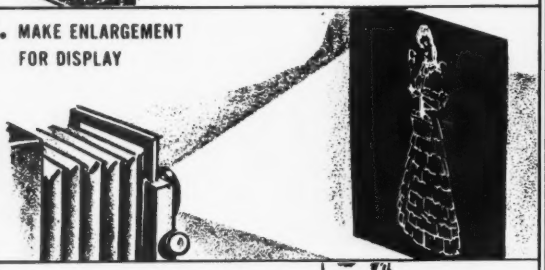
THE OLD WAY

"INDIRECT COLOR"

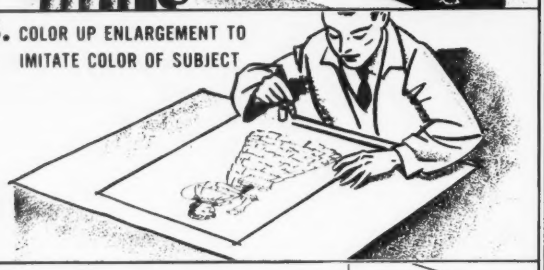
1. TAKE ORDINARY PHOTOGRAPH



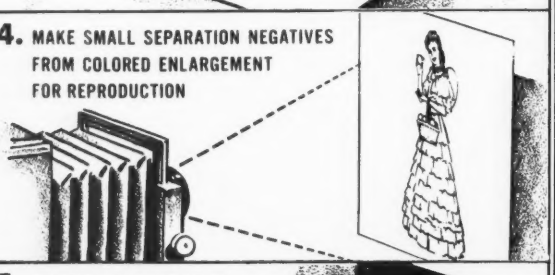
2. MAKE ENLARGEMENT FOR DISPLAY



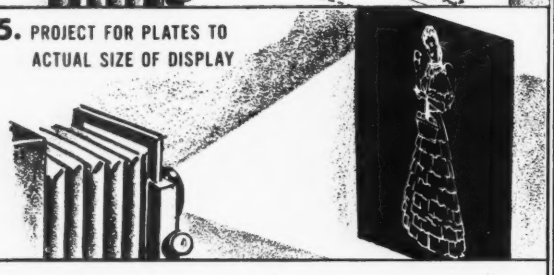
3. COLOR UP ENLARGEMENT TO IMITATE COLOR OF SUBJECT



4. MAKE SMALL SEPARATION NEGATIVES FROM COLORED ENLARGEMENT FOR REPRODUCTION



5. PROJECT FOR PLATES TO ACTUAL SIZE OF DISPLAY

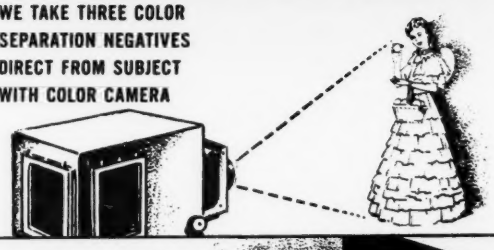


THE OLD WAY, you took five steps to reproduction. You lost something more at each step. And what you lost was — LIFE!

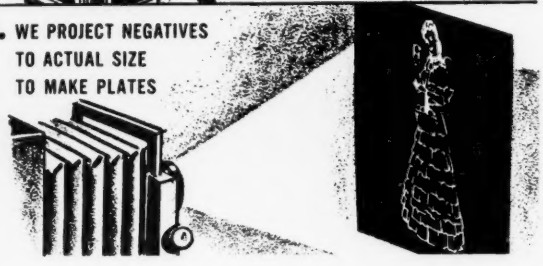
DIRECT COLOR

THE NEW WAY

1. WE TAKE THREE COLOR SEPARATION NEGATIVES DIRECT FROM SUBJECT WITH COLOR CAMERA



2. WE PROJECT NEGATIVES TO ACTUAL SIZE TO MAKE PLATES



3 steps less

between

LIFE

— and the printed page

THE NEW WAY, we take two steps — lose nothing — preserve all the brilliance, vivid color and expression. In short, we have captured — LIFE!

DIRECT COLOR

A great step forward in Window Display pioneered by EINSON-FREEMAN

Four years ago, we produced a relatively small window card for Bausch & Lomb, direct from the negatives of a color photograph. . . . The result was so exquisite, almost gem-like in its perfection, that we determined to experiment to find out if the same result could be obtained even if the negatives were enlarged to giant size — without loss of color, brilliance, details or definition. This time the result was so startling in effectiveness and realism that it marked the beginning of a new era in window display.

In less than three years, this new development pioneered by Einson-Freeman — direct color photography reproduced by the deep-etch process—has advanced store display literally decades in sheer force of *realism*, pulling power and effectiveness.

Alert advertisers and advertising agencies had already perceived (and *proved*, in printed material and periodicals) the electrifying effect of this new selling force. But it was Einson-Freeman's pioneer experimentation that made it possible to apply it, with even greater impact, magnified by greater size, to the field where "visual selling" counts for most — at the final point of contact with the consumer, the dealer's windows and store.

Here is a graphic chart to show why—and how—this process puts new "punch," power, vitality into a medium only recently recognized as a potent selling force of the first magnitude. Here is the reason why, by former methods, you could only get *pictures* of people instead of *real* people; a pallid second-rate, second-hand reproduction, while this new process can give you vivid, vibrant, rich *reality*.

And if you want to see how much difference it can make, if you wish to know how much more this "new realism" can *sell*, call an Einson-Freeman executive to show you and tell you the sales-story of the brilliant originals of the displays shown below.

N. B. A fascinating trip through the entire process of producing the modern display may be arranged by appointment, at your convenience.

Write, wire or 'phone —

EINSON-FREEMAN CO. INC.

Lithographers LONG ISLAND CITY, N. Y.

BEAUTY

APPETITE APPEAL

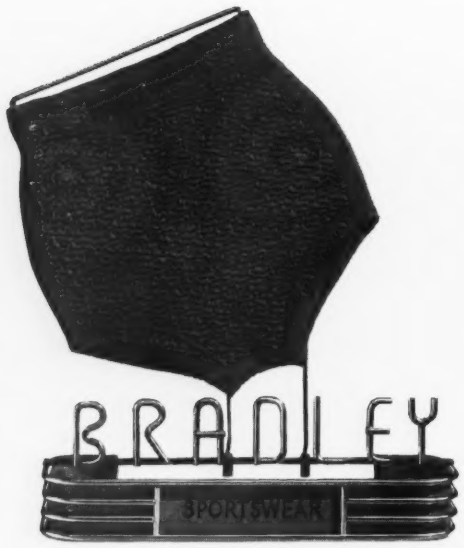
PERSONALITY

PERSONALITY

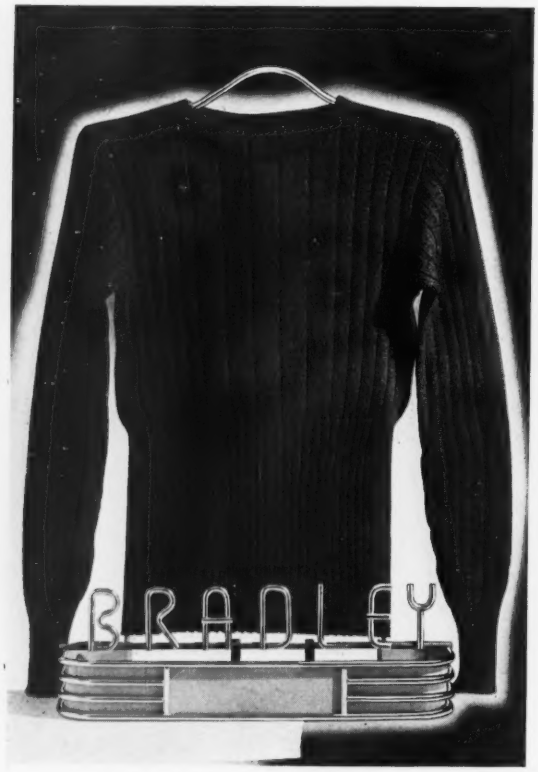
VIVID DRAMA

GETTING EYES ON THE PRODUCT

Wire display draws consumer attention to Bradley products and Bradley name



A pair of swimming trunks is form fitted over the wire frame which surmounts the permanent sheet metal base.



By interchanging the frames, a pullover sweater may be likewise displayed. The same base with the Bradley name in wire letters is utilized.

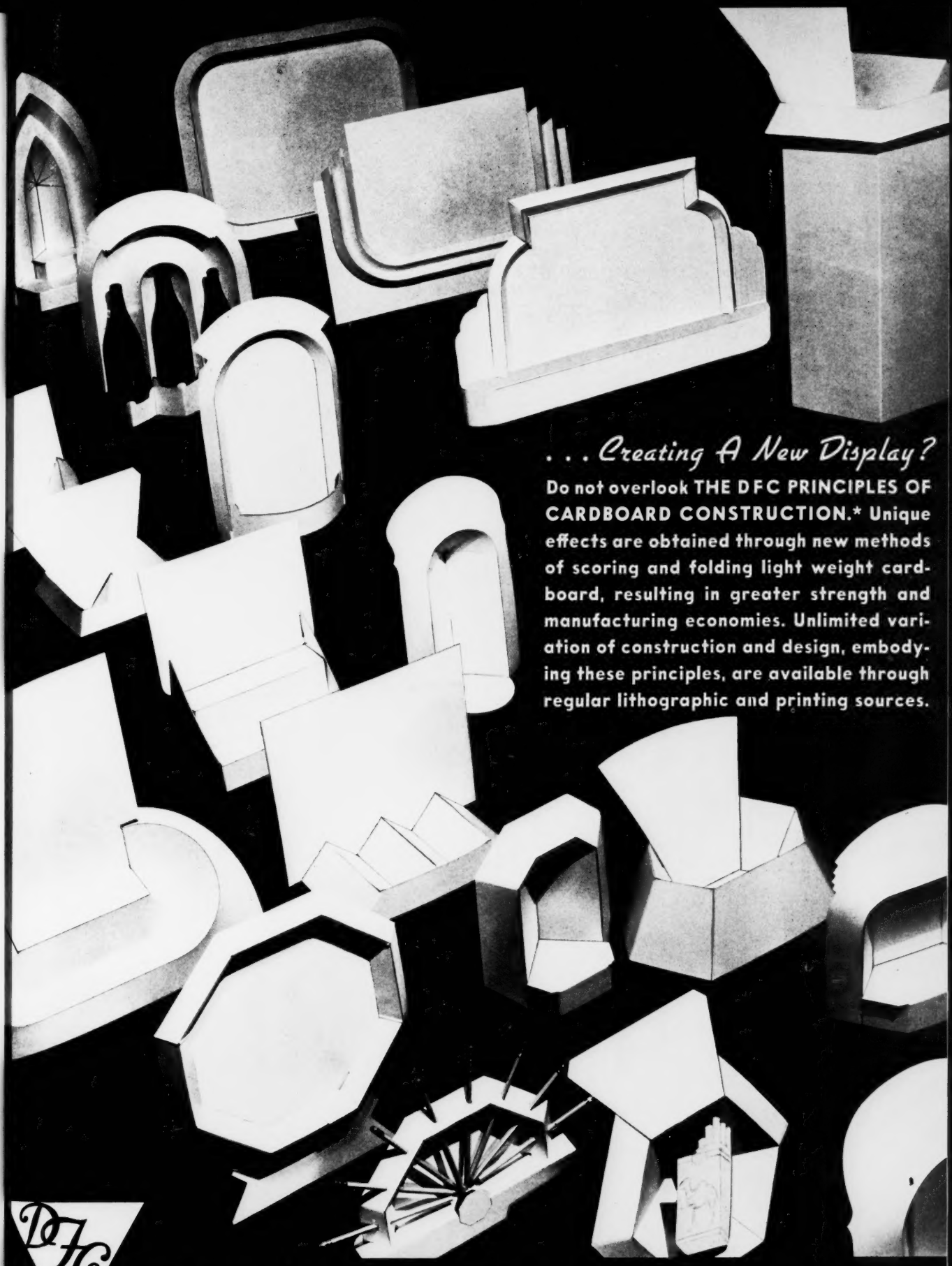
Modern conditions having demonstrated that a product will sell faster when properly displayed, the Bradley Knitting Co. sought a display which would enable them to advantageously present their hard-to-display knitted sportswear. To display two items as seasonally different as bathing trunks and pullover sweaters was the knotty problem calling for solution.

A wire counter display was finally adopted, the display simultaneously solving the problem of displaying both sweaters and swimming trunks. The unit consists of a sheet metal base surmounted by a wire frame over which the sweater or swimming trunks are snugly draped. The frame may be easily dislodged and reinserted in the base, thus enabling the company to utilize two such frames—one for the sweater and one for the swimming trunks. This interchangeability of frames permits the presentation of Bradley products in an effective manner all year around, making it possible to have two displays practically for the price of one. The bright smooth finish of the frame offers a neutral background for any color of garment and displays that garment in the natural form in which it would be worn. Thus maximum visibility of the product is achieved and consumer attention is focused on the product rather than on the display.

The base of the display remains a permanent fixture. The company name is executed on it in thick wire with a nickel silver finish. This use of wire letters which cannot be changed is the manufacturer's best assurance that the dealer will use the display just for his products. In addition to the prominent identification achieved through the use of wire letters, the sheet metal base is finished in black enamel with the lettering "Sportswear" in aluminum bronze to complete a simply designed fixture of lasting appearance and durability.

By carefully balancing and relating such factors as the amount of space available in stores selling Bradley merchandise, the seasonal character of the products and the element of cost, the company has successfully solved its display problem and, at the same time, the dealer's display problem. The unit occupies but a small area of counter space and yet presents the products in a manner calculated to get eyes on the product. By virtue of the interchangeability of frames with the permanent base, the display becomes a part of the store's permanent fixtures. The bright finish of the wire display is likewise in step with modern functional design trends and thus fits into the modern store.

Display produced by the Union Steel Products Co.



. . . Creating A New Display?

Do not overlook THE DFC PRINCIPLES OF CARDBOARD CONSTRUCTION.* Unique effects are obtained through new methods of scoring and folding light weight cardboard, resulting in greater strength and manufacturing economies. Unlimited variation of construction and design, embodying these principles, are available through regular lithographic and printing sources.

DISPLAY FINISHING COMPANY, Inc.

21-16 44th Road — Long Island City, New York

Mounters and Finishers to the Lithographic Trade

*PATENTED

POTATO BOY ON WHEELS

Familiar display figure of Maine Development Commission reused in three-dimensional merchandise display

Time was when a crude window-sticker or price card, or a flamboyant chromo of a wall poster was considered sufficient as a sop to the dealer in the ordinary fruit or vegetable grower's advertising campaign. But Brooke, Smith, French and Dorrance, advertising and merchandising counsellors to the Maine Development Commission (and note well the significant addition of "merchandising") do not consider the job of advertising done with the appearance of the copy in newspapers.

Complete and really effective follow-through, right to the actual point of contact with the public, has accounted, in large measure, for the phenomenal success of this campaign, which not only broadened the markets, but substantially increased the price received by the growers for their product.

The original "follow-through" was to create a little character, the Maine Potato Boy, whose charm would be a potent attraction to any woman. Next, to have it reproduced by a process, combining direct color photography with deep-etch offset, which would almost literally "bring it to life." It was both the unusual charm and the unusual quality of this display which put over 100,000 units into grocery stores.

The next step was to put the Maine Potato Boy to work to make larger individual sales per customer. This evolution showed the boy with a practical three-dimensional wagon, ingeniously constructed to hold three actual 15-lb. bags, which naturally suggested a multiple-unit purchase to the customer.

The final step to complete the cooperative idea back of the new display is the use of the wagon to feature related merchandise, helping the dealer to sell other than the products of the advertiser.

Credit: Display by Einson-Freeman Co., Inc.

The freckle-faced lad who has come to be known as the Maine Potato Boy, through his appearance on thousands of two-dimensional displays (see lower left hand corner), has now reappeared on a three-dimensional, direct color photographic unit designed to effectively display Maine potatoes in conjunction with related merchandise.

1

1. Under daylight or artificial light, the Vi-Delta display makes a dramatic presentation of the three forms in which this vitamin concentrate is available. Note the use of white enamel on metal surfaces to emphasize the ethical nature of the product.

"WHITE WAY" IN THE WINDOW

This display works day and night at its job of spotlighting Vi-Delta desirability

The coming of evening used to mean the drawing of shades—blackout. Today in store windows, as on Broadway's Great White Way, darkness is accompanied by light—spotlighting public attention upon the messages of merchandisers.

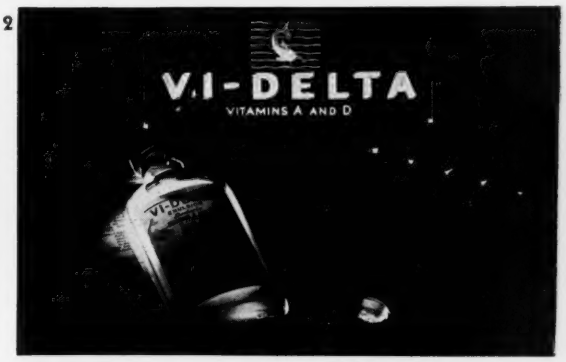
The dramatic technique, so important in all display design, is particularly important whenever lighted displays are to be planned. In recent months, the development of new materials and of new ways of working these materials has opened up new vistas for those who can utilize lighted units effectively. An outstanding instance of this sort is the new display, created of metal, edge-lighted glass and formed transparent acetate sheeting, for Lederle Laboratories, Inc.

The unit, as now distributed in thousands of drug stores, consists of a surgically white metal frame supporting a dark metal platform upon which rest the three containers and upon which is printed, in bold white lettering, the legend applying to each of the three packages. Each container rests on a die-cut niche which provides a firm seat and, at the same time, permits the passage of light from a hidden bulb located beneath the platform. This bulb is also utilized to illuminate, by edge-lighting, a glass sign located in the back panel of the display. The entire unit is covered by a dome-shaped sheet of formed transparent acetate, firmly locked into the metal frame to protect the various packages.

In the daytime, sunlight or ordinary artificial lighting from an outside source serves to illuminate the display and thus to accomplish the company's purpose. After dark or in dimly lit portions of the retail store, the hidden bulb creates a completely new effect, illuminating the glass rear panel and creating a fluorescent glow within the three containers.

Credit: Display manufactured by Design Center. Vuepak transparent sheeting material supplied by Monsanto Chemical Co.

2. At night, edged lighting and lighting through the packages focus attention upon the most important elements in the display.



2

All these widely different packages, and many others of equally distinctive appearance, are wrapped on our versatile FA type machines.

Versatility

PLUS WIDE SIZE RANGE

These three Tender Leaf Tea packages are all wrapped on one FA machine—showing the extremely wide range of sizes handled by the FA.

All the widely different products pictured above are wrapped on our FA type machines. Moreover, in addition to this versatility, the FA is designed to handle an extremely wide range of sizes—for example, all three sizes of the Tender Leaf Tea packages at right are wrapped on one FA machine.

Changes from one package size to another are quickly and easily made by simple hand-wheel adjustments. The FA can be equipped to handle any type of wrapping material—glassine, foil, transparent cellulose, waxed paper, or plain paper wrappers. May be provided with Electric Eye for accurate registration of printed material fed from a roll.

Because of its outstanding advantages, the FA has won remarkable popularity during the comparatively short time it has been on the market. It is a machine you cannot afford to overlook in your consideration of new wrapping equipment.

Consult our nearest office.

Write for literature

PACKAGE MACHINERY COMPANY, Springfield, Mass.

NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO

Mexico, D. F., Apartado 2303 Buenos Aires, Argentina: David H. Orton, Maipu, 231

Peterborough, England: Baker Perkins, Ltd. Melbourne, Australia: Baker Perkins, Pty., Ltd.

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

PACKAGING TECHNIQUE and PRODUCTION

1

1. Plenty of sunlight through many glass windows in the new General Foods plant for the processing and production of Maxwell House and Sanka coffees. The modern plant is located on the waterfront so that ships can unload green coffee on the "doorstep" of the plant.

"WORLD'S LARGEST" COFFEE PLANT

General Foods opens the most modern of coffee processing and packaging plants at Hoboken, N. J.

General Foods Corp. has recently started manufacturing operations in its new plant, located in Hoboken, N. J., for the processing and packaging of Maxwell House and Sanka coffees. In this strategically located six-story, modern plant, ingenuity plus keen scientific knowledge and extensive experience have been brought to bear upon the business of roasting, grinding and packaging coffee.

In what is, in effect, one continuous operation, green coffee is received on the Hoboken waterfront pier, from steamships coming from various parts of the world, and moved continuously through the various stages of blending, roasting, grinding and packaging without deviation or interruption. Bags of green coffee are lowered from the ship to the platform and hoisted by a fleet of ten automatic tilting-tiering-telescopic fork trucks. These trucks are capable of carrying two tons of coffee in bags, lifting them to high piles on wood pallets or platforms. Samples of each lot are carefully tested by coffee experts for flavor, aroma and other factors controlling the quality of coffee and determining the blend.

The company's integrated self-sufficiency is more or less guaranteed by its location and farsighted planning. A can manufacturing building is conveniently located to the main plant, thus eliminating freight charges and time losses. General Foods central research laboratories are likewise housed near the main plant so that Maxwell House and Sanka coffees may be under continual experimentation as to caffein, blend, etc. This department's activities embrace both pure and applied research. Raw materials are analyzed and tested and improved packages and packaging materials and methods are constantly sought and developed.

There are five complete production cycles, each beginning on the sixth floor and ending on the ground floor. One cycle is entirely devoted to the roasting, grinding and packaging of coffee merchandised in cellophane wrapped bags, while another cycle is employed for the processing and packaging of tinned Sanka coffee. The remaining three cycles are utilized for Maxwell House coffee which is packed in tin containers. Two filling

2

3

and packing machines are utilized on each individual production cycle.

The green beans are fed into chutes which travel by gravity to cleaning and blending machines on the floor below. The efficiency of the cleaning machine is attested by the large amount of stones, twigs, coins and other foreign matter constantly accumulated. Six blending drums, each capable of holding $1\frac{1}{2}$ tons of coffee, perfectly intermix the beans.

Immediately beneath the blending tanks, on the floor below, are the huge roasters. The roasting process is anything but unscientific. The roasting unit is completely automatic and the method of temperature control is unerring in determining scientifically the proper degree to which coffee should be roasted. Cone-shaped separators keep the re-circulating air free of the white skin or chaff which is released from the folds of the coffee beans during the roasting process and likewise prevent any charring of the chaff during roasting. The separators discharge through an air seal into a pneumatic tube collecting system which transports the chaff for destruction to incinerators on the plant's roof.

In rapid succession, the beans are roasted in 20 minute batches, then tested, then passed to the grinding machines on a lower floor through a tubular conveyor. There are three grinding units per cycle, turning out a total of 50,000 lbs. of coffee an hour. The beans are ground twice to insure a finer texture. Upon leaving the grinding machines, the coffee drops through tubular conveyors to the weighing and filling units on a lower floor. The entire packaging process takes place here. The Maxwell House coffee units operate at an approximate speed of 65 to 85 per minute.

Empty cans drop by gravity through a chute to the weighing and filling mechanisms. The cans pause, are filled four or six at a time and move onward by conveyor, to receive their covers, loosely crimped in place. Then, proceeding on, they are sealed under a high vacuum. A product such as coffee which breaks down or grows

4

5

6

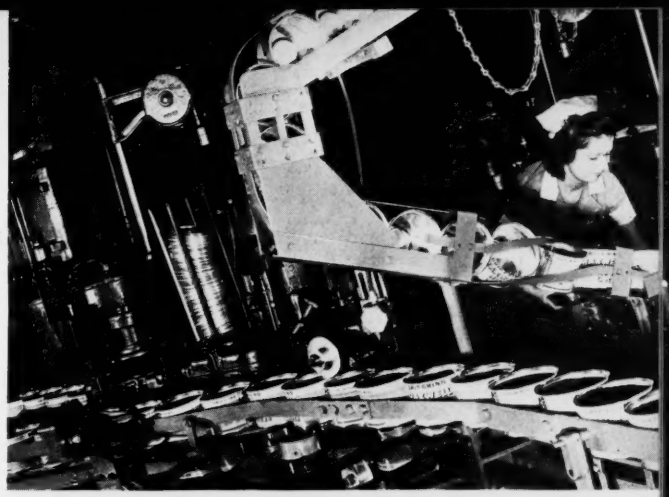
rancid in the presence of oxygen and which can only be kept fresh through complete air elimination during the packing process, is naturally a fit subject for vacuum packing. An unusually high and consistently uniform vacuum may be maintained on the Sanka and Maxwell House coffee production lines so that preservation and freshness of the product is assured. The completely packed and sealed cans, traveling on the two conveyor belts from the two filling and packing machines utilized in each cycle, are converged at one point. An operator directs the cans from the two lines to a single conveyor belt, from which point the cans pass onward to be packed in shipping cartons.

As the cans roll down the conveyor, they are automatically pushed into the shipping carton, a battery of six or twelve cans filling the case at one time. The case then drops automatically on a belt and is conveyed through a case sealer.

The cellophane wrapped bag production line is planned to function smoothly at a rate of 30 bags per minute. The bags are set on the conveyor line by an operator and then pass to the filling and weighing machines. Special check weight tests are made on this line—as on the tin can packaging line—to verify the machine's accuracy. The filled and sealed bags are removed from the conveyor line by an operator who places them in a waiting shipping container.

Credit: Weighing and filling machines by Pneumatic Scale Co., Ltd. Case packers and sealers by Standard-Knapp Corp. Conveyor lines by Jeffrey Mfg. Co. Cleaners by B. F. Gump Co. Roasters by Chapin-Burns.

2. Green coffee beans, after being cleaned, are thoroughly mixed in one of these 20-bag blending drums. **3.** A battery of roasters, specially designed for the new plant. Note the cone-shaped separators which keep the re-circulating air free of the chaff that is released from the coffee beans during the roasting process. **4.** A two-stage coffee granulizer. Roasted whole coffee may be viewed through window at the top of the machine. Perfectly ground coffee sifts through the conveyor and chute at the bottom right. **5.** Empty coffee cans are set on the conveyor line by an operator. **6.** This high-speed automatic filler fills coffee cans at a rate of 85 per minute. The roasted coffee is pre-weighed to exact net weight before these numbered devices pour coffee into cans which are automatically vibrated on the conveyor to aid filling. **7.** Illustration shows empty cans on the way to weighing and filling machines. Cans are inspected and turned upside down as a final protection before being filled. Filled cans are en route to the packing machine where coffee is vacuumized in cans. **8.** Cans are directed from two conveyor lines into a single flow. **9.** A push of the lever by the operator and six cans of coffee are taken from the conveyor and shoved into a shipping case. Other units fill twelve cans at a time. **10.** Illustration shows operator opening bags and placing them on a conveyor line. The net weighing machine in the center weighs out coffee into the bags. An inspector takes bags from the line and double-checks weight.



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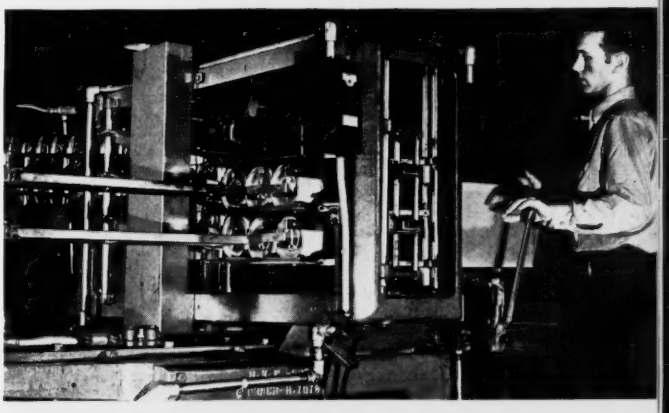

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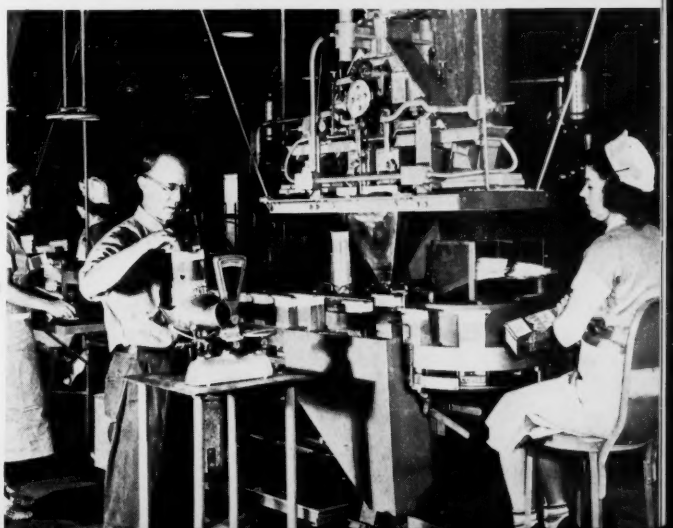

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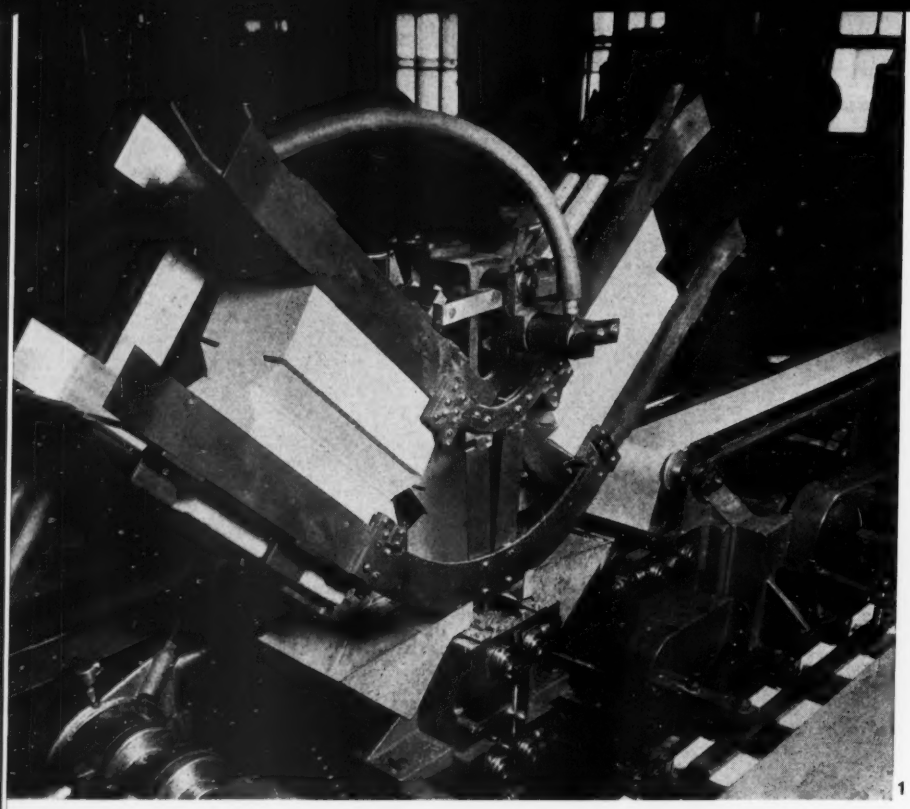


1

1. Close-up view of the pendulum carton blank feeding mechanism. The pendulum swings alternately to and from the two carton blank magazines. Blanks feed downward to the forming device which is situated immediately below this unit.

CARTONING A DELICATE PRODUCT

New machine at Colgate plant puts package "around product" at rate of 150 per minute

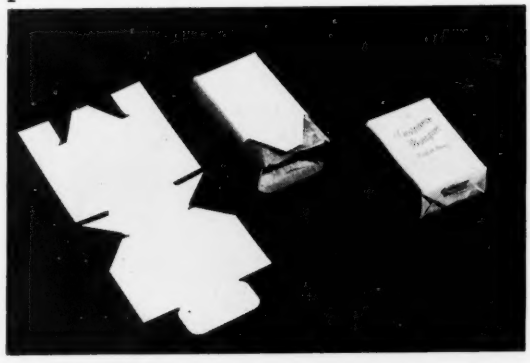
The handling of newly pressed and hence delicate cakes of soap on wrapping and cartoning equipment has always presented a difficult problem to soap manufacturers and machinery designers and, in practice, manufacturers resorted to the use of relatively slow speed machines, often operated at speeds slower than their rated capacity, in order to protect the product. Now, however, in the giant Jersey City plant of the Colgate-Palmolive-Peet Co., a newly developed cartoning machine has been installed capable of operating, without damage to the product, at speeds as high as 125 per minute.

The machine is no mere carton filler, but, rather, performs a whole series of operations, including the making of glued cartons from flat blanks, the lining of these cartons with wax paper, the filling of them without damage to the product and their final closing and sealing. The output conveyor of the new machine leads directly to the wrapping machine which applies the outer decorative wrap for Cashmere Bouquet soap and delivers the finished product to the packing tables.

Flat blanks which have been previously cut and scored are taken alternately, by a pendulum mechanism, from two carton blank magazines and fed downward to a setting up mechanism located in the lower portion of the machine. It is claimed that the setting up of these blanks eliminates the expense of separately gluing the cartons in a previous operation. The style of carton used is likewise claimed to show a saving in board requirements.

While the machine is capable of producing either a

2



2. Left: The unfolded carton blank. Note solid bottom and tuck flap at top only. The assembled carton is seen in the center and the wrapped and filled package at the right.

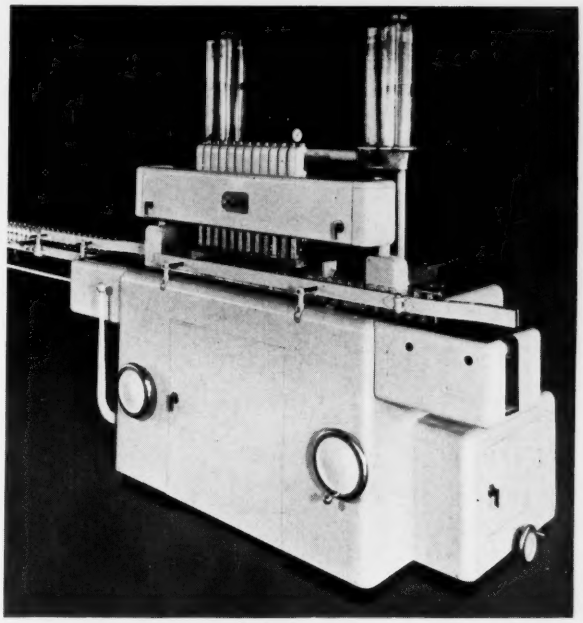
SEE PNEUMATIC'S NEW

SUPER-FAST FILLING MACHINE

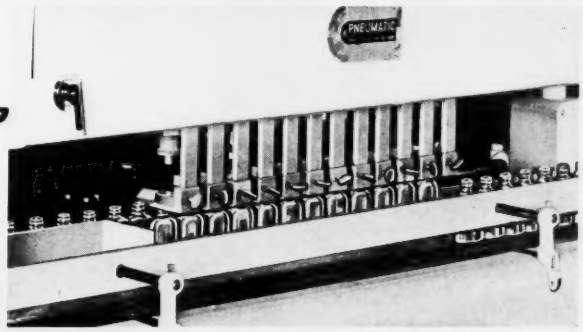
At the CHEMICAL SHOW—Booth 22 Main Floor

Of course you're going to the Chemical Show! This event transcends all other interests whenever it occurs. And deservedly so. Occupying three full floors of the Grand Central Palace, it is the most educational and informative exhibit industry fosters for its mutual benefit and enlightenment.

You'll see many latest inventions, nearly all the newest developments of research and the most recent improvements in processing, production and packaging methods as applied to your product. At the Pneumatic booth, for instance, a new streamlined, compact, automatic filling machine, operating at a speed which — head for head — will surpass any other type of filler. It will be operating on quart containers, and will fill these with absolutely no drip, and with uniform accuracy. A significant advance in filling equipment performance and efficiency! That's the highlight of Booth 22 — but here you will also find complete information on every phase of bottling and packaging production, as handled by Pneumatic's more than 80 different machine models. Come see!



HOW IT'S DONE — Close-up of battery of 12 super-fast filling heads. Empty bottles enter from left rear, are filled on center elevator, discharged at front right. Smooth, unhurried operation, yet maximum output.



PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

If you would like free admittance tickets to the Chemical Show, just drop us a line.

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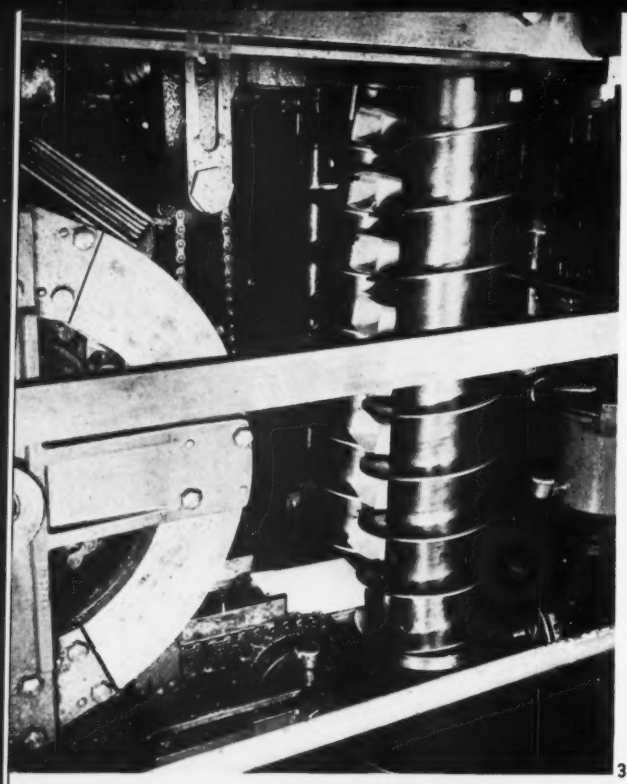

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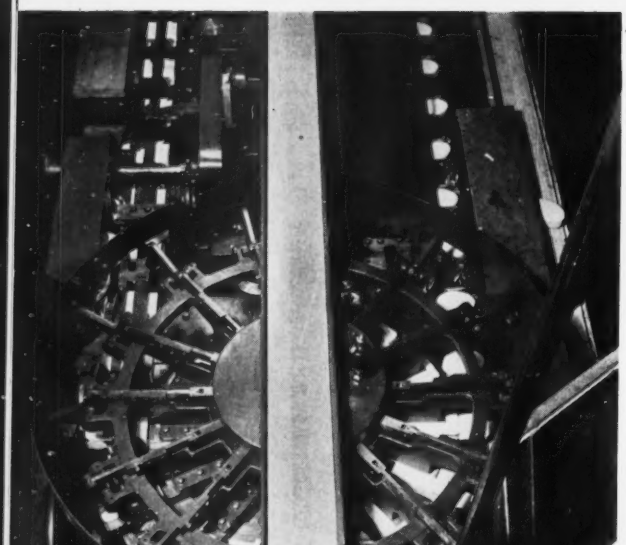

4

tuck style or a glued top carton, the present installation uses the latter type only. The blank is so constructed as to produce a solid bottom carton with only the top requiring gluing. This prevents the consumer from opening the package at the wrong end and thus eliminates the necessity for printing "open at this end" directions on the carton. It also reduces substantially the possibility of the contents dropping out of the carton in subsequent operations such as wrapping or in shipping or in use by the consumer.

Simultaneous with the carton forming and gluing operation, a waxed paper liner is cut from a roll and formed over a metal former. The carton blank, feeding from the dual magazine, is formed over the same metal former, thus taking its position immediately over the previously folded liner. After gluing, carton and liner are passed through a heating unit to hasten adhesion and to heat seal the liner.

Leaving the metal former, the lined cartons enter an elevating mechanism consisting of two revolving flanged spirals. These revolve in opposite directions and cause the cartons to rise in a continuous stream to the filling station where the cartons are received by a rotary filling device.

Meanwhile, the newly pressed cakes of soap arrive at the machine by conveyor belt and are placed, by hand, on a chain conveying unit which brings them to the rotary filling station where they meet the lined cartons. Because of the delicate nature of the product, this rotary mechanism is so designed as to avoid placing undue pressure upon the soap itself. Contrary to usual practice which involves pushing the product into the carton, this machine follows the procedure of pushing the carton over the product. While this may seem a minor point in procedure, it has the effect of protecting the product while permitting high speed operation.

After a three-quarter revolution around the wheel, the carton leaves with its complement of soap and passes to a folding and gluing mechanism. Here the liner is folded and the top flaps of the carton are glued, completing the package. The cartons (*Continued on page 106*)

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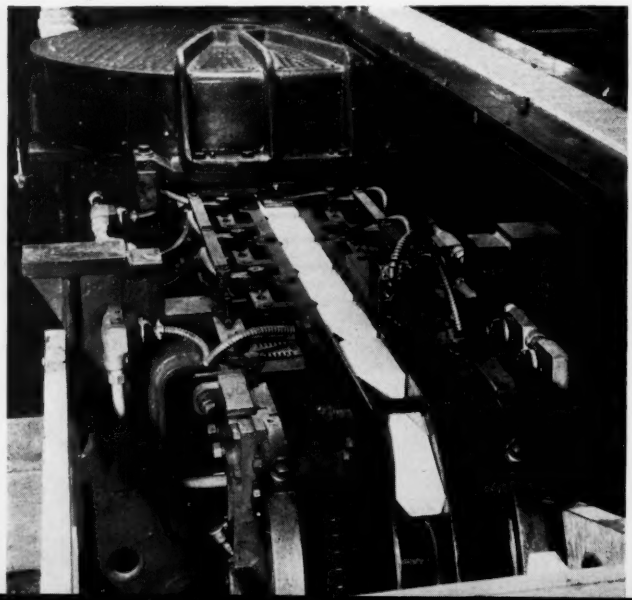
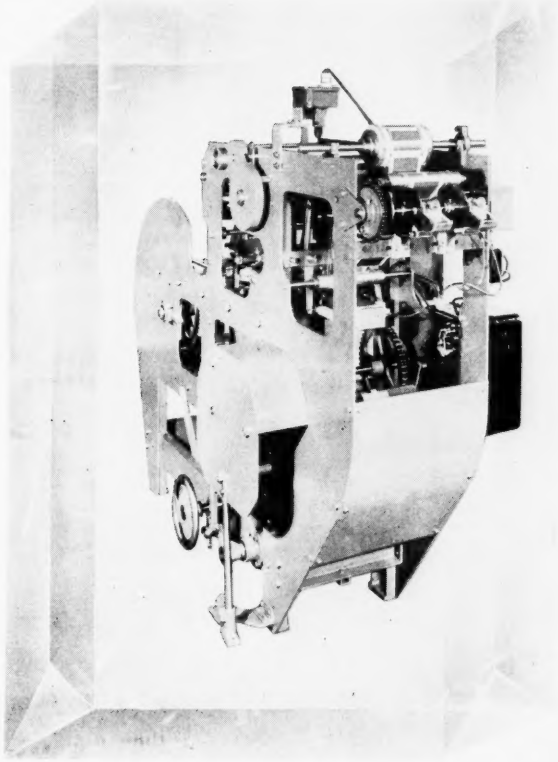


3. Detailed view of the elevating mechanism leading the formed and lined blanks up to the loading station. **4.** The rotary loading station. Note that cartons move outward over the cakes of soap, reversing the usual procedure. The band through the center of the photograph is waxed paper feeding toward the lining device. **5.** Heat sealing units operating on formed blanks, proceeding downward toward carton elevator.

It's in the BAG!



And So Is Your Product When You Use the

Peters Automatic Bag Making Machine

ANOTHER NEW SENSATION

Business is "in the bag" these days for many industries. Products of various types are being packaged in transparent bags.

Once again Peters has developed a machine to meet the new packaging needs. The above photograph illustrates this PETERS AUTOMATIC BAG MAKING MACHINE and the type of bag it makes from rolls of Cellophane, Sylphrap, Glassine and other transparent materials. It makes the bags much more economically than you can purchase them made-to-order.

This machine requires no operator and even strips the bags from the mandrels, placing them on a conveyor belt ready for use. It operates at an average speed of 36 bags per minute. Equipped with Electric Eye Attachment for spot registering printed materials.

Write today for complete information on a machine to make your bags. No obligation.

PETERS MACHINERY CO.
4700 Ravenswood Avenue, Chicago, Illinois

GERMICIDAL ULTRAVIOLET ENERGY

by L. C. PORTER and P. W. NEIDHARDT*

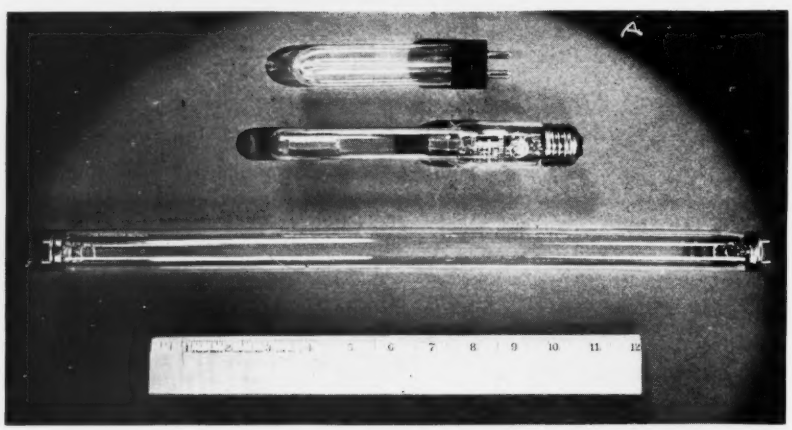
A new tool for industry which has particular application in certain packaging fields

The world of man is beset with countless millions of minute organisms known as bacteria. A great many of them are helpful. They bring about changes which otherwise would not be possible. For example, the bacteria known as yeast and bacteria found in the soil are helpful in many ways. However, hosts of organisms present practically everywhere in man's world are bent on doing him harm. They attack his body and spoil his food. They are a constant worry to the hospital and the canning factory, the meat packer and the dairyman. Vast resources have been devoted to fighting them, and vast resources will continue to be spent as far in the future as now can be imagined.

* General Electric Co.

One of the germ-killing agents discovered early in the search was natural sunlight. Subsequent research has shown that the germicidal action came largely not from the visible light, but from the invisible energy known as ultraviolet. This energy, which gives us our summer suntan, is similar in every respect to the energy we commonly know as light, except that it is of shorter wavelengths than light.

As artificial sources of ultraviolet energy were developed and studied, scientists learned that while germs could be killed by exposure to the sun's radiation, the most potent germicidal action of ultraviolet came from energy of wavelengths much shorter than those received from the sun. *(Continued on page 102)*



1. Germ killing radiation from shortwave ultraviolet germicidal lamps is the dairy industry's latest answer to the problem of sanitary control of milk bottling and distribution. To remove the infection hazard of harmful bacteria attacking the top or pouring lip of milk bottles, a major focal point of infection, the Cowdrey Products Co., manufacturers of hood caps, is utilizing the new bacteria destroying lamps. The illustration shows one of the many installations employed in the new Cowdrey process. The hood caps, upon leaving the forming machine, pass over the sterilizing rays. Thick sheets of lead glass, impenetrable by the power rays, protect the eyes of the operator. **2.** Three types of germicidal lamps now in use in the packaging industries. From top to bottom, the 3-watt, 5-watt and 15-watt units.

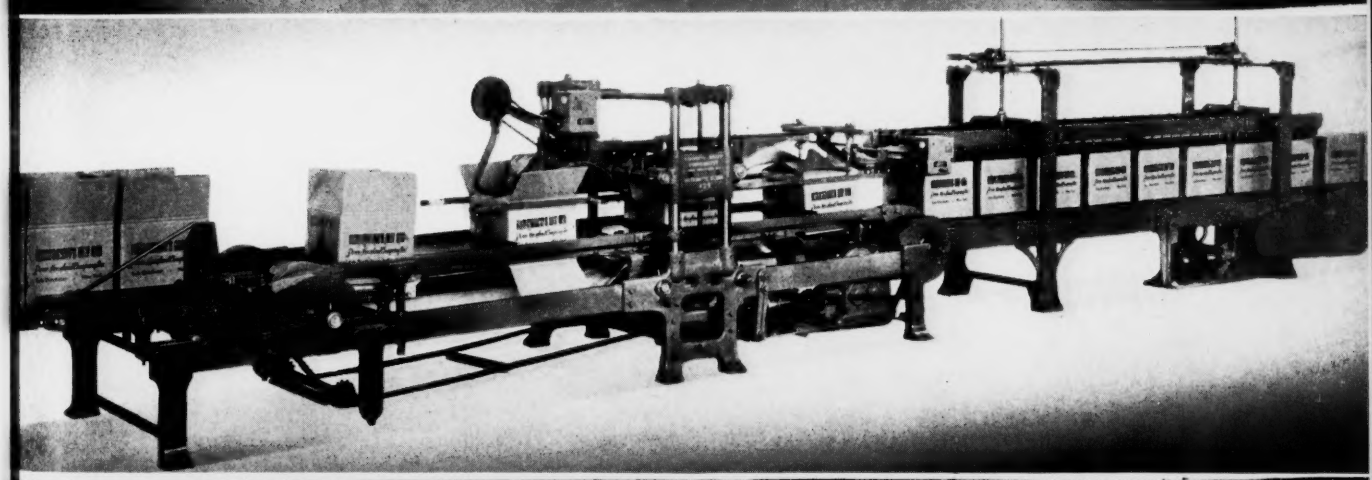
Suds, too...

Need CASE SEALING

And of course the job is done on STANDARD-KNAPP Equipment, with its:

1. LOWEST PER UNIT COST
2. HIGHEST OPERATING EFFICIENCY
3. RUGGED LONG LIFE

Learn why nearly every major packager of foods, drugs, beverages, tobacco, standardizes on STANDARD-KNAPP Case Sealers. For full particulars on how you can save, write



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Windsor House, Victoria Street, LONDON, ENGLAND

FIRE PROTECTION IN PLANTS

by CLIFFORD STRAIN*

What type of equipment and what technique is best for hazards found in packaging operations?

Take one average factory employee. Add one small-sized gasoline or electric fire. Throw in a normal amount of jitters and you've got a chance for more "bonehead plays" than ever found on a sandlot diamond—with a lot more danger involved. For the fire records are full of cases where employes used a water-type extinguisher on a flammable liquid fire, and succeeded only in spreading it, or inverted an extinguisher—as per directions—so far from the fire that it emptied before he reached the flames.

Sometimes these errors are harmless. Sometimes they're fatal. Since almost every factory fire starts small, it obviously pays to check up on the first-aid fire extinguishers in the plant, and on the knowledge of the men who use them in an emergency. For it has been said that a nickel's worth of precaution is worth $100 in insurance, which is borne out by the fact that 40 per cent of all businesses wiped out by fire never rebuild.

Two of the most common types of plant fires are flammable liquids (Class B fire) and electrical (Class C fire). Oddly enough, the most common type of portable extinguisher—the soda-acid or water-type—is not recommended on either flammable liquid or electrical fires. Its special province is the small Class A fire, involving wood, paper, boxboard or other carbonaceous material on which the cooling and wetting action of water is necessary. For both liquid and electrical fires, carbon dioxide gas, carbon tetrachloride or foam are generally recommended.

Of these three latter types, a recent survey showed that least was known about the operation and function of carbon dioxide. Nearly everyone knows the familiar 1-qt. carbon tetrachloride pump-gun and how its liquid stream vaporizes to form fire-choking gases; and the viscous output of the 2 1/2 gal. foam cylinder is well-known for its ability to separate a burning liquid from its flames. But carbon dioxide, science's most recent fire-fighting contribution, is more of a mystery.

* Walter Kidde & Co.

WHAT SIZE CARBON DIOXIDE EXTINGUISHER?

Type of Fire	Size of Fire	Carbon Dioxide Cylinder Capacity
Wood, paper, etc.	Small Medium Surface Only	50 lbs. Not recommended 15 lbs.
Flammable liquid in open containers (gasoline, kerosene, benzine, naphtha, paint, light oil, etc.)	1 sq. ft. 2½ " " 5 " " 7 " "	2 lbs. 7½ " 10 " 20 "
Heavy flammable liquids in open containers (grease, heavy oil, tar, pitch, transformer oil)	1 sq. ft. 2½ " " 5 " "	4 lbs. 15 " 20 "
Alcohol, acetone, ether, etc., in open containers	4 sq. ft. 10 " " 15 " " 25 " "	2 lbs. 7½ " 10 " 20 "
Carbon disulfide in open containers	2½ sq. ft. or less	20 lbs.
Electrical motors, generators, switches, relays, etc.	Dead Live	2 lbs. 2 "

THE MOST *Flexible* FILLER YOU HAVE EVER SEEN

So versatile it will fill practically *any* kind of container with almost *any* kind of material, the Stokes & Smith Universal Filler, with Gross Weight Scale, comprises four different machines in one single unit. These are:

1. *A gross weight scale with auger feed or rotary feed.*
2. *A volumetric filler measuring material by the volume of the package.*
3. *A volumetric filler measuring material by the turns of the auger, a very precise way for the smaller quantities.*
4. *A packing machine to compress the material into packages.*

Changing from one type of container to another, even from any paste to free-flowing powder, is only a few minutes work.

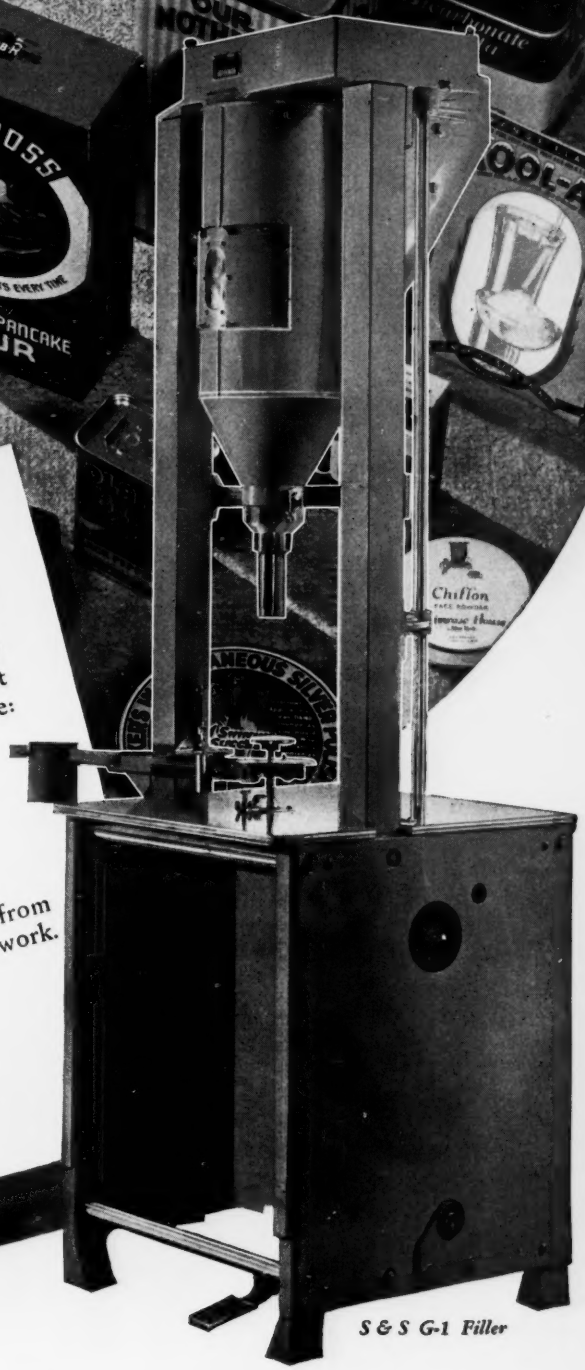
May we arrange a demonstration for you?

STOKES & SMITH Co

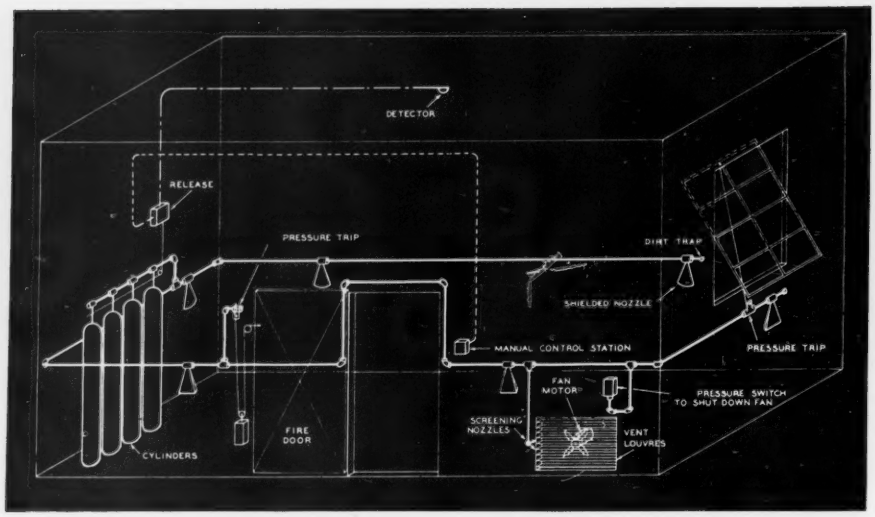
PACKAGING MACHINERY — PAPER BOX MACHINERY

Philadelphia

British Office: 23, Goswell Road, London, E. C. 1



S & S G-1 Filler



1

1. Typical "total flooding" installation for enclosed spaces where hazardous packaging operations are carried on. At left are carbon dioxide cylinders connected by pipe to discharge horns strategically located around the room. An automatic "rate of temperature rise" detector releases the gas which, in turn, can be made to shut off fans, close fire doors and windows.

Actually, the carbon dioxide compressed into a fire extinguisher cylinder is a liquid. When released, it discharges as a gas with fine "snow" particles intermixed and it expands some 450 times to form a heavy, dense blanket over a fire. Its action is to dilute the oxygen content of the air enough so that the fire can't breathe and goes out. There is no liquid, and hence no mess, and the gas cannot harm delicate materials or humans, nor is it a conductor of electricity. This means that employees cannot be shocked when using a gas extinguisher on a live electrical line.

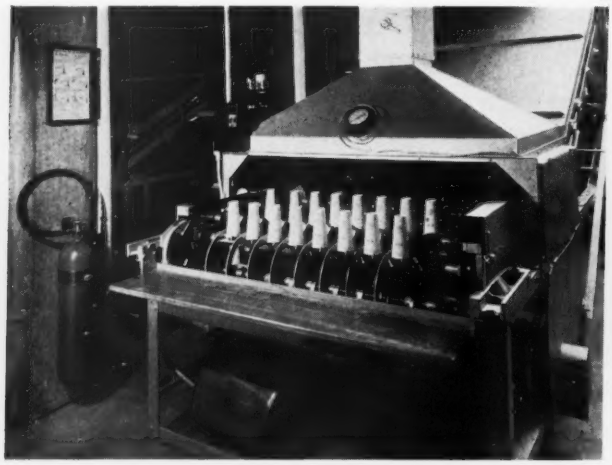
In the packaging industry, the average use of carbon dioxide is in portable extinguisher form, the units in use ranging from small pistol-grip cylinders containing 2 lbs. to large wheeled units holding 150 lbs. No maintenance other than weighing annually is required, for they do not need periodic recharging nor do they freeze in the coldest winter weather.

Fighting fires successfully with these portable carbon dioxide gas extinguishers does not call for any special training. The base of a liquid fire should always be attacked first so that the gas billows up and prevents the flames from getting back to the part already extinguished. On spill fires, storage cabinets or other types involving vertical surfaces, the gas cloud should be directed at the bottom of the blaze, because flames spread upward more easily than downward. Because of the cooling blast of snow and gas which precedes the user, he can, and should get his discharge horn within at least a couple of feet from the flames.

For concentrated hazards, such as filling and sealing flammable liquids, or solids, carbon dioxide systems are usually built in. A typical installation is found in an Eastern plant engaged in the filling and sealing of ether cans. Because of the flammable vapors involved and the danger of a spark igniting the (*Continued on page 108*)

2-3. Hazard points in processing or storage rooms are sometimes protected by built-in carbon dioxide systems, more often by portable gas extinguishers, sometimes by both. At right may be seen a portable being used on a flammable store fire.

2 3



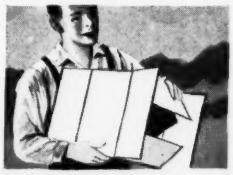
PACKOMATIC ENGINEERING RESEARCH

...first in the field with the *New!*

PATENT APPLIED FOR

PACKOMATIC COMMANDER

Illustration of the usual fussle opening a knocked-down container by hand.



At last opens container and attempts to fold flaps on one end.

Still trying to fold bottom flaps.

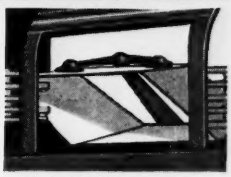
Finally gets container in position for packing.

The Ingenious Packomatic Commander takes Cartons from a stack, opens them, closes all bottom flaps, and places them in position for automatic or hand packing.

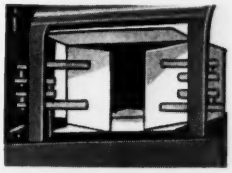
REASONS WHY YOU SHOULD HAVE A PACKOMATIC COMMANDER

1. INEXPENSIVE—Pays for itself.
2. AUTOMATIC—Complete synchronization control.
3. POSITIVE—Definite performance with ease.
4. PROVEN–Commercially tested in the production line of a plant that is continually seeking to improve its high standards.
5. PORTABLE—If desired.
6. COMPACT—Requires no more space than your present method.
7. STURDY—Designed to withstand heavy duty demands.
8. PATENTS—Patents applied for to cover the many startling new features.

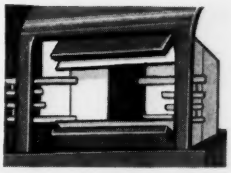
SEND FOR FURTHER INFORMATION. DOES NOT OBLIGATE YOU IN ANY WAY! DO IT NOW!



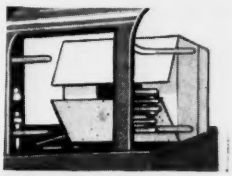
Container delivered from bottom of magazine and being opened.



Ready for closing of bottom flaps.



Inner and outer bottom flaps of container are closed.

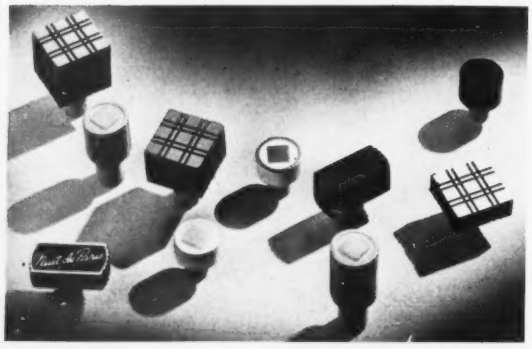


The set-up container is now in position for packing.

PACKOMATIC
PACKAGING MACHINERY
J. L. FERGUSON COMPANY
JOLIET · ILLINOIS

Equipment and Materials

NEW DEVELOPMENTS IN PACKAGING MACHINERY • METHODS and SUPPLIES



EMBOSSED-TOP CORKS

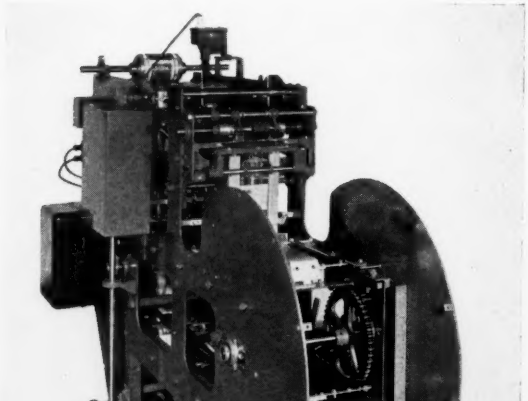
Armstrong Cork Co. has announced the development of new embossed-top corks for use on glass containers. The closures are reported to offer dependable protection against product leakage and evaporation and the advantage of convenience in opening and resealing the package. The hardwood tops are available in a number of designs and constructions and are executed in bright color combinations.

PEBBLE GRAIN SURFACE FOR SHIPPING BOXES

The Hinde & Dauch Paper Co. has developed a new type of surface for corrugated shipping containers. A pebble grain kraft paper finish adds a decorative note while the shipping box retains all of the protective features of corrugated board. The embossed surface would likewise seem to offer decorative possibilities where the shipping container is utilized as a display piece on the store counter.

AUTOMATIC BAG MAKING MACHINE

Peters Machinery Co., Chicago, Ill., has developed an automatic bag making machine which makes bags from cellophane, glassine and other transparent materials. The machine requires no operator and even strips the bags from the mandrels, placing them on a conveyor belt ready for use. It operates at an average speed of 36 bags per minute and is equipped with an electric eye attachment for spot registering printed materials.



PIPE COMPOUND

The Sauereisen Cements Co. reports that improved conditions in steel barrel shipments may be achieved by sealing the barrel plugs with pipe compound. The pipe compound is reported to form an airtight seal, eliminating plug leaks, the evaporation of volatile products, infiltration of water, galled threads and plug corrosion. Since compound-treated plugs unscrew easily, it is said, time is saved for the consignee and, in addition, accidents sometimes caused in the effort to force stubborn, corroded plugs are substantially prevented.

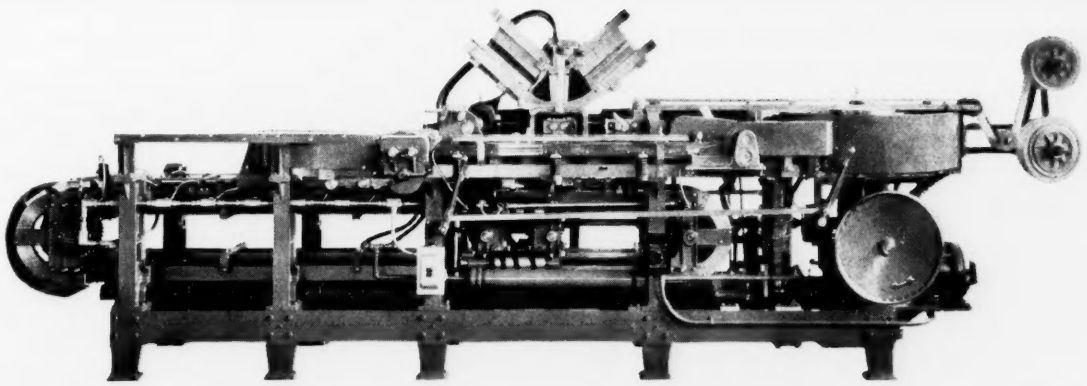
Composed of light-weight, lubricating fillers, Sauereisen Pipe Joint Compound No. 52 is claimed to be non-hardening, non-toxic, resists heat, cold, alkalies and corrosion. The compound, it is claimed, does not spoil when the drum is opened.

Something entirely new for the packaging industry

Worth While Investigating!

CARTON MAKING, LINING AND FILLING MACHINE

With a running speed up to 150 complete cartons per minute



A high speed cartoning machine that is completely different from anything on the market. This machine in one complete unit automatically performs the operations of making the cartons from the flat blank, then lining, filling and closing them.

The cartons are set up and glued from flat blanks which have previously been cut, creased and printed, and known as the "Brightwood cereal style" blank. The setting up of the blanks on this machine eliminates the expense of previously glued cartons, and in addition this style of carton generally shows a saving in the amount of board used. The machine will produce either a tuck style or a glued top carton. When tuck style cartons are used, we might point out that only the top requires tucking as our machine produces a solid bottom carton. This has several advantageous features—it prevents the consumer from opening the package at the wrong end and eliminates the necessity of printing on the carton "open at this end." It also reduces by 50% the possibility of the contents dropping out of the carton.

The operation of the machine is briefly as follows: The wax paper liner is cut from a roll and formed over formers. Then the flat blank is fed from a magazine and formed on the same formers over the wax paper. The carton is glued and, by passing through a heating unit, the adhesion is hastened, at the same time heat sealing the liner. The lined carton is then elevated to the filling station where the product is filled or inserted. Next, the top of the liner is folded (and heat sealed if a sift-proof package is required), and then the top flaps of the carton are either glued or tucked, thus completing the package. If desired, a cellophane wrapping attachment can be added to the machine to wrap the completed cartons.

The liner produced on this machine is, in our opinion, the most perfect wax paper liner ever made by machine at such high speed. This liner can, of course, be omitted if the job does not require it.

The machine can be equipped to carton one-piece solid articles, or multiple free-flowing solids, or free-flowing powdered products. Speeds will vary from 100 to 150 packages per minute, depending on the product.

Send us samples and particulars on your requirements, and we will be glad to submit detailed information.

U. S. AUTOMATIC BOX MACHINERY CO., INC.

ALSO OWNING AND OPERATING THE NATIONAL PACKAGING MACHINERY CO.

CARTONING MACHINERY CORPORATION

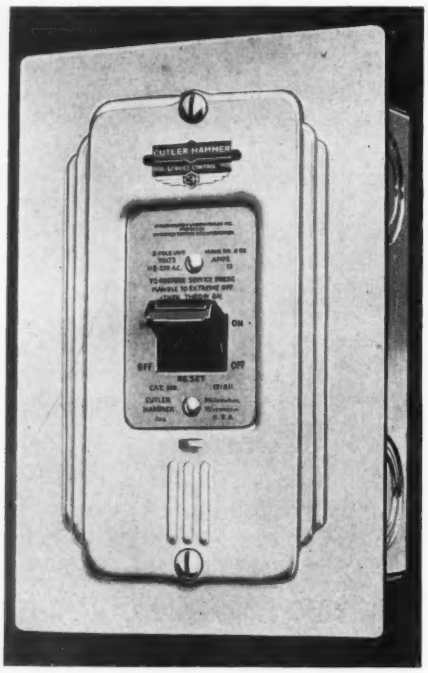
18 Arboretum Road, Roslindale (BOSTON), MASS.

Branch Offices: NEW YORK CHICAGO, ILL.

PRINTED CELLULOSE BOTTLE SEALS

New printed effects on cellulose bottle seals have been developed by a new process announced by E. I. du Pont de Nemours & Co., Inc. It is stated that it is now possible to produce intricate multi-colored designs in register, half-tone motifs and designs from reverse plates. Impregnation of designs of two colors into bands of a third color is another recent innovation adding to effectiveness of the seal. New textures such as metallic and grained surfaces have joined with the color possibilities in emphasizing cellulose bands as decorative elements on the glass container.

At the left in the illustration may be seen an intricate multi-colored design in register. In the center is a half-tone, wood-grain effect. At the right, a design from a reverse plate has been employed effectively.



CIRCUIT BREAKER

The newest addition to the Cutler-Hammer line is a small size, type MO Multi-Breaker rated from 15 to 25 amperes. Designed for use in the shop, commercial building or home, the unit functions as an entrance or service switch with overload and short circuit protection on lighting circuits, oil burners, refrigerating units, stokers and water heaters, air compressors, air conditioning equipment, electric unit heaters, small workshop tools, feed grinders, drill presses or, in fact, wherever fused type switches are employed. Overloads and short circuits, the most frequent causes of voltage failure, may still occur, but with the advent of Multi-Breaker service control, the inconveniences of fuse "blow outs" are said to be things of the past. The unit requires only the resetting of a small lever, conveniently located, to restore service without bother or fuss.

METAL MERCURY SWITCH

An improved mercury switch claimed to be especially suitable in maintenance contact problems, from wall switching to motor starting, has been developed by Durakool, Inc. Two reducing agents, it is reported, prevent deterioration of the mercury, eliminate the possibility of any contact interruptions, assure complete efficiency and reliability in operation. They are said to withstand temporary short circuits, to operate on small tilt with little energy and are claimed to be unbreakable, non-inflammable and dependable for millions of contacts. Available over 40 amp. capacity and up to 200 amp., the mercury switch may, on special order, be made for even greater capacity.

PAPER TESTING WAX

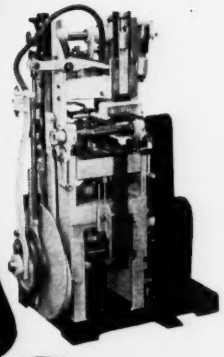
A new series of standard paper testing waxes has been announced by the Dennison Manufacturing Co. The waxes are designed for use by paper manufacturers, printers, lithographers and others concerned with the development, inspection and control of paper for coating and printing purposes. The new waxes are said to be less brittle and give test results which are more sharply defined. The series of waxes, it is reported, are so designed and standardized as to have a graduated degree of adhesion.

PERFECT REGISTER

NO WIPING OF BOTTLES

PROFIT BUILDER *for* 1939!

The machine that applies labels to products like those above, saves time and money in production departments. Not only a vastly improved appearance by the Labelrite *method,* but, by several phases of labor saving and competent speed, earns profits and pays dividends. This Labelrite method—either hand-fed or fully automatic—deserves your investigation. Get a catalog with complete details. . . .



NEW JERSEY MACHINE CORPN.

1600 WILLOW AVENUE HOBOKEN, N. J.

***Chicago Office:* 549 W. Washington Boulevard**

Sales and Service representatives in sixteen cities—also in Canada and England.

For Your Information File

Unless otherwise indicated, copies of catalogs, booklets, etc., mentioned in this department may be obtained without charge by writing to the sponsoring company at the address given.

A NEW COLOR AND SOUND MOVIE, "Keeping in Touch," was shown recently by International Printing Ink at the national convention of the Printing House Craftsmen and the United Typothetae of America. The film shows the role of printing ink as a factor in modern life and indicates the necessity for the ink maker and printer alike to keep in touch with research which is creating new developments that are revolutionizing the graphic arts. "Keeping in Touch" was filmed by Willard Pictures, under the supervision of George Welp. It is planned to show the picture to various Graphic Arts organizations throughout the country and it is available to printing groups who request showings.

International Printing Ink has issued a booklet which includes the script of the movie along with selected items from recent "Keeping in Touch" columns which the company runs monthly in trade magazines.

"OPERATION ANALYSIS" by Harold B. Maynard and G. J. Stegemerten (Published by McGraw-Hill Book Co., Inc., New York, N. Y., $3.00). This book tells executives, time study men, methods engineers, foremen, tool designers and other key supervisors what an operation analysis is, how to make one, how through proper analysis operating efficiency can be improved.

It is the purpose of the volume to describe the procedure for conducting operation analysis. The book develops systematically the proper approach in making an operation analysis from the first consideration of the job to the final determination of the best way of its performance. The book discusses the most recent advances in methods of analysis. Some outstanding features are a discussion of the universal applicability of the operation analysis procedure, a method for determining the amount of analysis work that is economically justifiable on any job, a thorough exposition of the nine steps of operation analysis that lead to methods improvement, process chart construction, the uses of process charts, commonsense plant layout procedure, case material from the authors' rich experience, showing the results accomplished in many fields of industrial enterprise by the application of the operation analysis procedure.

A 4-PAGE BULLETIN describing new uses of Corroflex and Corro-cutters has been published by the Sherman Paper Products Corp., Newton Upper Falls, Mass. Corroflex, a patented, flexible corrugated wrapper, when used in rolls on Corro-cutters, is described as offering unusual shipping room economies. Six different models of Corro-cutters are illustrated and prices of all models and sizes are also given.

"PRESENTING TWO NEW PAPERS" is the title of a folder issued by the Wyomissing Glazed Paper Co., Reading, Pa. In the folder are found sample sheets of the two new, improved papers—Platinum and Cardinal.

TO ASSIST EXPORTERS in locating devices and methods of reinforcing all types of export packs, an informative 24-page booklet has been prepared by the Acme Steel Co., Chicago, Ill. The booklet describes ways for assuring safe arrival of shipments at foreign destinations and ways to prevent pilferage as well as damage claims.

THE EVEREDY CO., INC., Frederick, Md., has published a catalog entitled "Modern Gifts" which illustrates, describes and prices a complete line of chrome giftware which might well be utilized as reuse packages or as premiums.

HAZEN PAPER CO., Holyoke, Mass., has announced slight advances in prices, due to advances in raw material costs, affecting their embossed metallic papers and their Phantom, Cavalier, Piralon Flint, Parkay Woodgrain and Congo lines.

"COPY TESTING," a study prepared by The Advertising Research Foundation (Published by The Ronald Press Co., New York, N. Y., $3.00). Based upon a 4-year research project, this volume describes the methods in use today for the testing of advertising copy and seeks to explain their practical application. The authors show not only specifically how each method works, but when and where it should be used, how much it costs (with practical suggestions for keeping down expenses), ways to handle the results and how errors in application and interpretation can be avoided.

While prepared with publication advertising as the subject for discussion, the volume should be of interest to package planners because many of the methods here described might easily be utilized, with some modification, when testing package design and package copy. Thus the chapters on opinion tests, recognition and identification tests, recall tests and inquiry and coupon tests, all contain data of potential value to the package designer or manufacturer unable to decide the details of a package change.

TO ILLUSTRATE the intangible "plus" factors that go into fabrication of quality cartons, Container Corp. of America, Chicago, Ill., has just published a booklet entitled "Folding Cartons Plus."

"Real value in folding cartons," the foreword states, "is a combination of many factors—some obvious, others intangible. The appearance of a single finished carton will seldom exhibit the entire merit of such services as scientific laboratory control, rigid inspection methods and utility of the most modern, efficient machines."

Some of the "intangibles" illustrated are the making of full size specimens by hand, the studies of packing problems, the manufacturer's production methods and display needs, the choice of color, design, lettering and the comparative "pull" of each type in the market, the determination of the product's requirements in surfacing and the effects that can be achieved through different surfaces and the strategic location of plants to give fast service on orders. The book is illustrated throughout in brilliant colors, line drawings and photographs.

A NEW INFORMATIVE house organ in the food field, "Glas-Pak Age," is being published by the Glass Container Assn., New York, N. Y. The publication, a quarterly, will cover the latest developments in glass container production and in the merchandising techniques of glass-packed foods. A regular department in each issue will describe progress in design and redesign of glass containers.

RIEGEL PAPER CORP., New York, N. Y., has published a brochure on its Leatheret papers. A swatch of samples is included in the folder and a list of the companies stocking and selling Leatheret at present is likewise included.

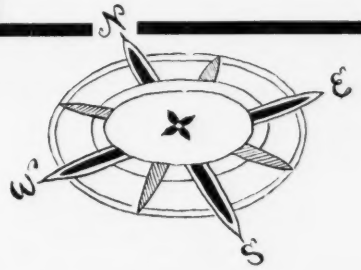
W. A. JONES FOUNDRY & MACHINE CO., Chicago, Ill., has issued a 16-page bulletin on its Worm-helical speed reducers. This type of speed reducer, it is reported, was developed for vertical shaft drives for agitators, mixers, etc., where a reduction in speed is required. The booklet contains many charts, illustrations and diagrams.

A NEW BOOKLET on industrial fire fighting, called "Don't Play with Fire," has been released by Walter Kidde & Co., Bloomfield, N. J. It describes the way in which carbon dioxide snow-and-gas smothers fires involving flammable liquids and electrical equipment and the various types of equipment for these most common and dangerous industrial fires are illustrated and described. Both portable and wheeled equipment, for almost every type of industrial hazard, is described in the informative booklet.

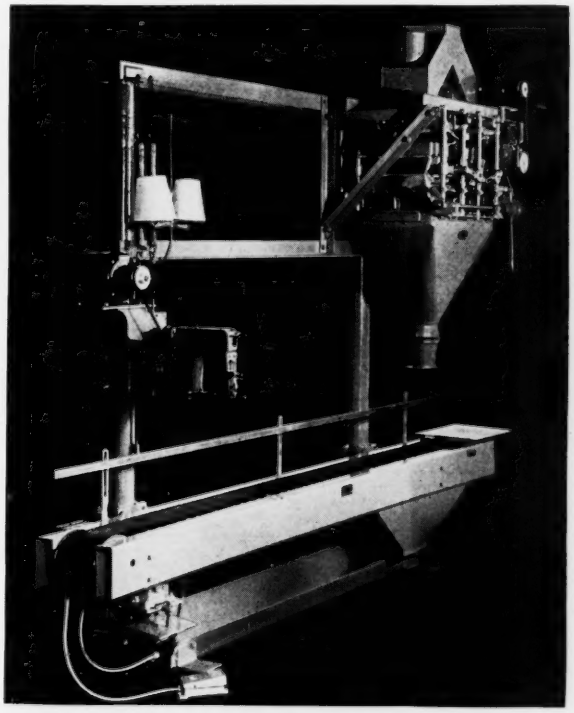
THE GERRARD CO., INC., Chicago, Ill. has published a 4-page folder on production tying in the shipping room as aided by either a semi-automatic wire tying or wire bundling machine.

ACME STEEL CO., Chicago, Ill., has appointed Waldo F. Tucker manager at Los Angeles, Calif.

MILES APART!



are the opposite poles in the broad realm of packaging. Vague indeed seems the relationship between those aristocrats of the packaging equipment field whose complex functions are performed with swift yet easy grace in clean and spotless environments . . . And the more stolid types which unmindful of surroundings ungrudgingly and untiringly do the more irksome tasks in this work-a-day world of ours . . . Yet share they must the glory of achievement and progress in American Industry.

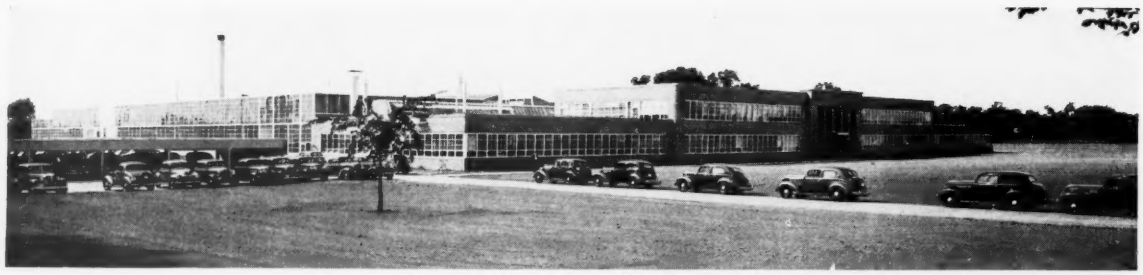


Model 90-I-2 automatic weigher and bagger is just another example of streamlined efficiency.

CONSOLIDATED PACKAGING MACHINERY CORP.

1400 WEST AVE. BUFFALO, N. Y.

Plants and Personalities



The new Toledo Scale Co. plant covers 250,000 sq. ft., the building comprising a main structure of 420 ft. by 440 ft., chiefly of one story, with a two-story portion in front for administration offices.

TOLEDO SCALE CO., Toledo, Ohio, announces that manufacturing has been started in its new factory, for the making of automatic weighing devices, which replaces the six old plants scattered throughout Toledo. The manufacturing section is characterized by 60 ft. by 40 ft. units without pillars, providing an open expanse. All manufacturing departments are efficiently laid out here to secure utmost simplicity and economy of handling.

The plant is reported to be entirely complete as a manufacturing unit, from its own boiler plant serviced by a railroad siding to the large area devoted to research and experimental work.

W. V. FISHER, vice president and general manager of the Anchor Hocking Glass Corp., Lancaster, Ohio, has announced the promotions of the following individuals: C. D. King to director and general manager of the container division; S. B. DeMerell to sales manager, container division; J. J. Glynn and F. H. Baumgardner to assistant sales managers, container division; P. L. Hershfield as factories' manager in charge of manufacturing. J. R. Dilworth has been appointed manager of the container division of the firm's New York office with supervision over sales in the eastern district and L. Piatt becomes assistant sales manager of the company's affiliate, Anchor Cap & Closure Corp., Long Island City, N. Y.

HARRIS-SEYBOLD-POTTER CO., Cleveland, Ohio, has announced the appointment of John C. Dabney as sales manager of its Seybold division, located at Dayton, Ohio. William Kinzeler, formerly Seybold sales manager, becomes manager of the central sales district, with headquarters at Dayton. Glenn Baber has been named assistant sales manager. John R. Lehman remains as resident manager of the Dayton factory.

FRED C. KAISER, vice president and general manager of Richard M. Krause, Inc., announces his resignation to assume a position in the same capacity with the Keller-Dorian Paper Co., New York, N. Y.

PAPER SERVICE, INC., Rochester, N. Y., has announced the opening of a box paper division under the management of Elmer S. Moore. Nationally advertised box papers of many companies will be distributed through this division and the organization will maintain a library of the box paper sample books issued by leading mills as an additional service.

W. A. BROWN, president of the Liquid Carbonic Corp., died October 16 at the age of 61. Mr. Brown had been with the Carbonic Corp. for 38 years, He was also chairman of the Service Caster and Truck Co. of Albion, Mich., a director of the Interstate Co. and a founder and first president of the National Assn. of Manufacturers and Distributors.

DESIGNED TO MEET the needs of plant managers, executives, purchasing agents, inspectors and others dealing with foods or related products is an evening course in food technology offered by Temple University, Philadelphia, Pa. Temple University also announces an evening course in applied dairy procedure.

EXHIBIT AND RESEARCH SERVICE is the name of a newly formed company which will act as an agent for exhibitors that do not have complete exhibit departments within their respective organizations. This new service is under the direction of William A. Foxen, formerly of the Museum of Science and Industry, with offices at 7 West 44th Street, New York, N. Y.

THE DOW CHEMICAL CO., Midland, Mich., announces that its new plant, devoted to the manufacture of Ethofoil and Ethocel, is now in operation. Ethofoil is a clear sheet material used for window packages, display containers for food stuffs and other commodities and Ethocel finds utility in molding plastics, lacquers and other applications.

FRANCIS G. COLLURA has been appointed eastern design director for Designers for Industry, Inc., with offices at 630 Fifth Avenue, New York, N. Y.

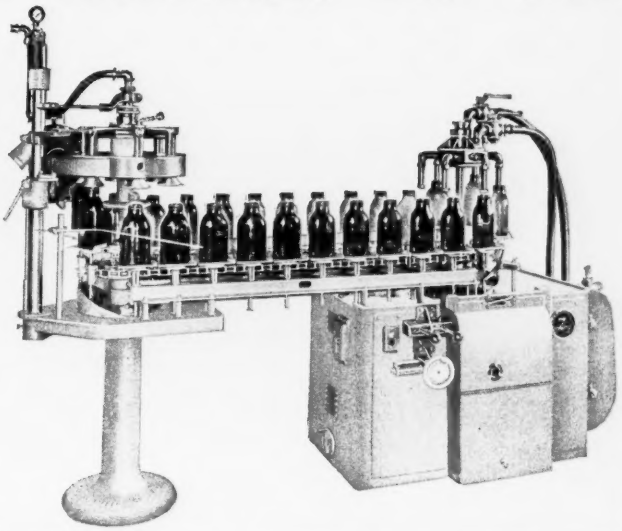
100%

CLEANING AND FILLING JOB

HIGH PRODUCTION, LOW COST

KIEFER

COMBINATION CLEANING AND FILLING MACHINE



You know our Vari-Visco with its astonishing performance in filling any viscous materials . . . so now . . . with modern features it does the job better than ever!

Automatically cleans the containers with filtered compressed air . . . then neatly, accurately fills them.

THE KARL KIEFER MACHINE CO.

NEW YORK
BOSTON
CHICAGO

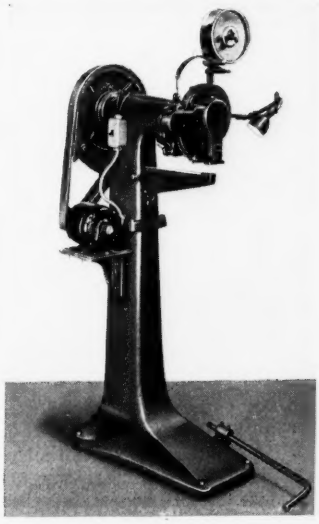
CINCINNATI, U. S. A.

LONDON, ENGLAND

SAN FRANCISCO
SEATTLE
LOS ANGELES

We build full automatic–semi-automatic –hand-fed equipment for cleaning, filling, closing, and conveying bottles, jars and tins. Filters, pumps, percolators.

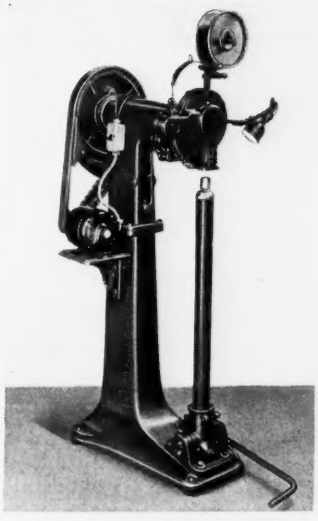
Two Improved Latham Stitchers



Improved Latham No. 34 Box Stitcher

A background of 54 years of experience is built into these two Improved Latham Stitchers. Extensive tests have proved them to be the machines for which many box makers and manufacturers have been looking, for stitching suit boxes, paper bags, set-up boxes, display boxes, corrugated and solid fibre containers, and similar work.

All working parts are concealed, which protects them from dust and dirt. All castings are heavier; heavy duty working parts are larger and stronger than those of previous models. Formers are reversible, doubling their length of service. Wider opening between stitcher head and clincher aids in handling of work. Stitcher head is detachable as a unit.



Improved Latham No. 34-B Bottom Stitcher

Operates at speeds up to 300 stitches per minute. Made in two styles—the Box Stitcher and the Bottom Stitcher. Throat length, 12 inches. **AND THE PRICE IS RIGHT.**

Ask for our Representative who will tell you of its many other features. It will pay you to investigate these Modern Stitchers.

DEXTER FOLDER COMPANY

330 West 42nd Street, New York

BOSTON, 185 Summer St. **CHICAGO**, 117 W. Harrison St. **PHILADELPHIA**, 5th and Chestnut Sts. **CINCINNATI**, 3441 St. Johns Place
SAN FRANCISCO **LOS ANGELES** **SEATTLE**, Harry W. Brintnall Co. **DALLAS**, J. F. Carter, 5241 Bonita Ave.

REDESIGN OPENS OPPORTUNITIES

(*Continued from page 45*)

had come to possess a certain value in the trade. The pattern had the advantage of being very flexible and thus easily adapted to the differing shapes found among the various packages. An additional advantage was found on display in the repeating effect or mass effect created by a grouping of packages.

The use of this master design accentuated another problem—namely, that of differentiating between the various items in the line which appear in similar packages. This need was particularly acute within the two principal groups, the metal cans and the set-up boxes.

In the metal can group were found six separate products and to permit instantaneous identification of these, the company's designer has utilized color variations, on the bull's eye, of the standard design. Thus one package utilizes blue on a gray background, another uses yellow on black, another black on yellow and still others yellow on blue and white on blue. In some instances, no additional color was necessary to achieve this effect. In the other cases where a third color had to be introduced, the added cost per package ran in the neighborhood of a single penny, a relatively insignificant figure in view of the size of the container and the cost of the product. In contrast, the old container was practically identical for the varying products in the line, differentiation between products consisting solely of the imprint of a rubber stamp.

Since the bull's eye design is repeated on all four of the side panels of these rectangular packages, the designer had ample leeway for the inclusion of all necessary package printing. Thus the Baker seal appears on one panel and the product name on the panel directly opposite, the side panels being devoted to directions for use and such other information as a graphic rendering of a thermal expansion, in the case of graphite inlay investment or a tabular presentation of physical properties of dental plasters and investments material.

Utilizing round friction plugs equipped with patented easy opening devices, the designer found another opportunity to emphasize the bull's eye effect on the covers of these containers. Here the metal of the can cover was left unfinished and the friction plug lithographed in red with white reverse lettering, including a white panel for the imprinting of the control number.

Among the large group of products requiring boxes of folding carton construction, it was found possible to carry out the same triangle and bull's eye design, varying it sufficiently from package to package to adopt the design to differing package proportions. To introduce a tamper-proof feature, the wraps of set-up box tops were extended to form gummed sealing labels which, when pasted over the bases of the boxes, made them completely tamper-proof. For dealer convenience in arranging stock and in quickly identifying the merchandise on the stock shelf, one end of each container was provided with data identifying the product contained within and listing the quantity. In cases where single containers were used for several variations of the product, provision is made for marking on this end panel of the package to provide further detailed identification. The opposite end of each container carries a panel for the imprinting of control numbers and both ends carry the Baker bull's eye trade mark so that the packages provide identification of Baker products no matter in what position they may be seen.

One extremely interesting redesign effort is found in the package for Baker's plastic filling porcelain. This container carries eight small bottles of material, plus a number of assorted spatulas and other instruments. A spider web plastic color guide is also included. The original container consisted of a set-up box, the top of which telescoped over a die-cut tray holding the various small bottles. The spider web and spatula were included in an envelope pocket as part of an informative booklet, and thus once the package was opened, no provision was made for the adequate storage of these parts. The package did not tie in with the general design of the line. This container has now been replaced by a hinged top set-up box utilizing the red, white and black Baker color scheme and a modification of the general design. Bull's eye trade mark labels on either side of the container seal it and guarantee against product tampering. The spider web is positioned in the top of the box, held in place by an elastic band threaded through holes in the top lining. The spatula, mixing plate, instruction booklet and other accessories all have fixed positions in the container and may thus be replaced after use by the dentist. The unit is not only more attractive in the dental supply depot, but is far more convenient in use.

Credit: Designer, Martin Ullman Metal cans by the American Can Co. Set-up boxes and folding cartons by The Warner Bros. Co. Perfectocoll carton by Robert Gair Co., Inc. Bottles by Hazel-Atlas Glass Co. Papers for set-up boxes Chas. W. Williams & Co., Inc.

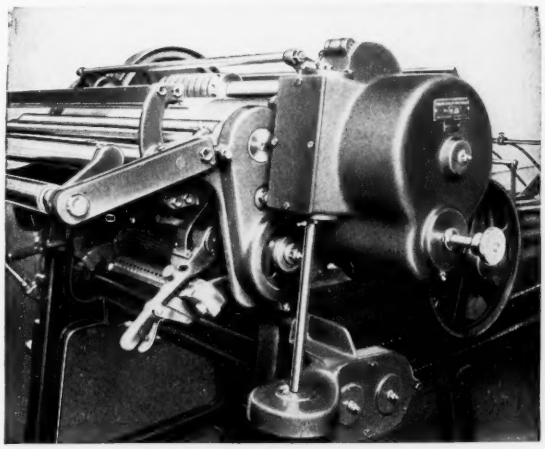
WHAT PRICE PLASTICS?

(*Continued from page 39*)

The reduction in mold depth likewise permits of savings on mold steel and tool-makers' labor to machine the mold. It should be understood that the advantages and economies of preforms do not apply in every case. Where, however, it is possible to use them, they afford pronounced economies.

Similar improvements have been gained through the introduction of preheating ovens which raise the temperature of the molding powder or the preforms and thus reduce the time required to heat the material in the die.

NO MORE WASTE IN CUTTING TO PRINTED REGISTER



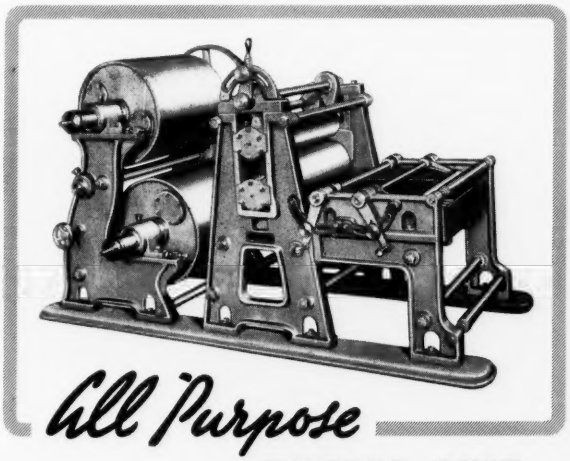
DEPENDABLE ACCURACIES IN "SPOT SHEETING" ARE NOW ASSURED THROUGH THE *NEW* BECK

DIFFERENTIAL CUT-REGISTER CONTROL UNIT

For cutting to register, printed wraps, labels, etc. This unit is to be had on Beck Sheeters controlled either by hand or **ELECTRIC EYE.**

CHARLES BECK MACHINE COMPANY

13th & Callowhill Sts. **Philadelphia, Pa.**



All Purpose

. . . WAXING UNIT

Used by many large producers of wraps and bags to enable a combination of printing and waxing; or printing, waxing and bag conversion; into a single operation.

Furnished complete with drives so that waxer may be set back of printing press or between printing press and bag machine.

Produces an excellent sheet, one or both sides waxed, with perfect control of wax percentages.

HUDSON-SHARP

MACHINE CO • GREEN BAY • WIS

ANILINE OR GRAVURE?

New Klingrose Press Prints Either Method and Surface-Colors

This newly developed press is designed to print by either the high-fidelity gravure process or the low cost aniline method. Its flexibility makes it ideal for printing, decorating or a combination of both.

•

KLINGROSE MACHINE CORP.

461 Hamilton Ave., Brooklyn, N. Y.

New York Office, 111 Fifth Avenue

PAPER SHREDDER

Now Within Reach of All

No longer is a large investment necessary for a speedy, modern shredder of waste paper. Here is a new and better machine that costs only a small fraction of previous models!

With it, you can save up to $10.00 per ton by shredding your old corrugated boxes, correspondence, or newspapers!

This new shredder produces A-1 quality packing material—fluffy, resilient, absorbent. And anyone can learn to operate it in two minutes.

70 Years of building quality shredding machines are behind this improved model.

Write us today for full data and the amazingly low quotation. Try our TEN DAY TRIAL OFFER and convince yourself!

INDUSTRIAL SHREDDER & CUTTER CO.

70 Years Makers of Quality Shredding Machines

703 S. Ellsworth St. **Salem, Ohio**

Once again, the advantage is found in a reduction in press time and a consequent increase in the output achieved through the use of a given press, a given amount of labor and a given cavity or group of cavities.

Thermoplastics and Injection Molding

Since 1932 and particularly within the last two years, a tremendous change in the plastic packaging picture has occurred due to the introduction of new thermoplastic materials and to the development of automatic injection molding presses utilizing these materials. Since thermoplastics do not change chemically in heating and cooling, but merely soften and re-harden into the shape forced upon them by the mold, it is possible, with the proper equipment, to heat them to a melting point and then to force them under pressure into cavities of a closed mold. While some may cavil at this highly simplified description, it should be adequate for this discussion.

The injection molding press offers the advantages of automatic operation, high-speed production and hence low unit output cost. Within the last two years and even within the last few months, great improvements have been made in the design of these presses, particularly improvements in the design of their heating cylinders and these improvements have had the effect of substantially increasing press capacities. They have marched from $1^1/_2$ oz. or less per injection or press cycle to as high as 12 oz. and more for single injection cylinder presses. More recently, multiple-unit machines have been developed using several injection cylinders to charge a single mold and thus capable of injecting as high as 36 oz. of material per cycle.

Since thermoplastic materials can be re-worked, operations of this type involve little or no waste material because all flash or excess material is re-ground and re-used. The injection has had particular application in the molding of small packaging parts such as closures, knobs and handles where a single injection may mold as many as 32 or more parts simultaneously.

The rapid advance of this method of molding may be judged by the fact that there are today over 600 machines of this type in operation throughout the country, most of them installed within the last two years.

In general, thermoplastic materials are in a higher price range than the thermosetting phenolic and urea types, but this high cost has been, to a substantial degree, offset by their greater ease of fabrication and by the possibility of re-working waste material. It should be remembered, however, that by no means all plastic package parts can be molded of thermoplastic materials or on injection molding presses, since a number of considerations affect the suitability of thermoplastic materials for packaging use. To cite but a single example, it would be inadvisable to use a heat softening material for any package use where it is likely to come in contact with substantial heat. Where, however, these objections do not apply, the new injection molding technique and its accompanying new materials have opened vistas not heretofore available for plastic packaging.

GERMICIDAL ULTRAVIOLET ENERGY

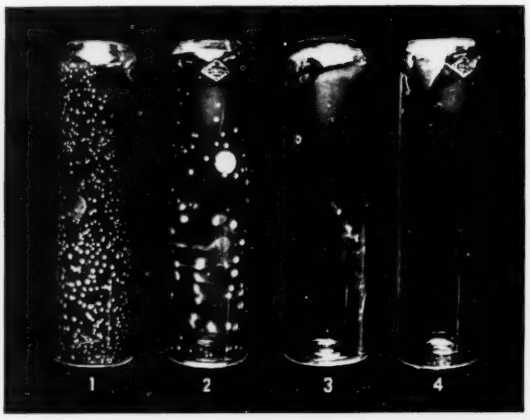
(Continued from page 86)

This has been known for many years, and artificial sources of the energy have long been available. However, because of their expensive construction these sources have not found wide application.

Three New Germicidal Lamps Developed

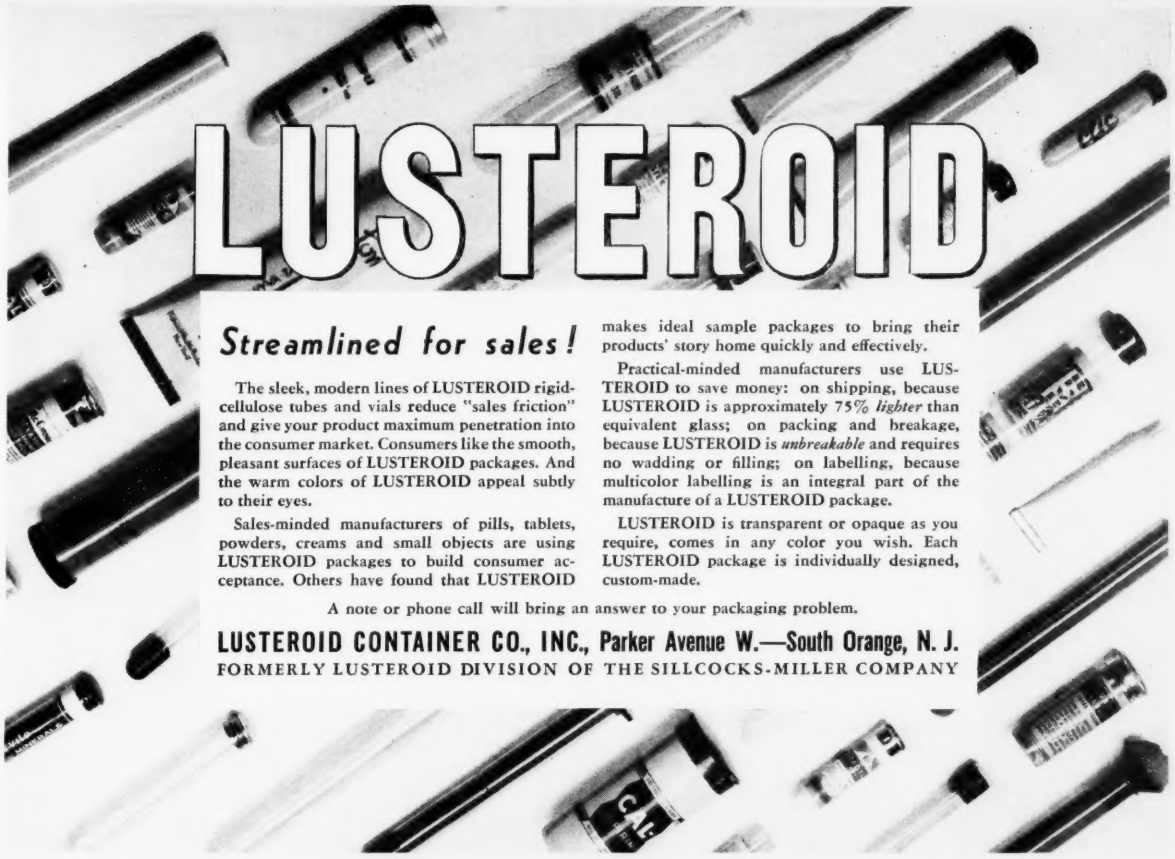
Recently, however, came the announcement of three compact, efficient and inexpensive sources of germicidal ultraviolet energy. These sources are known as the 3-watt, 5-watt and 15-watt germicidal lamps. Used with small auxiliary equipment providing necessary current characteristics, these lamps will operate on ordinary 105–120 volt alternating current circuits. The low cost of the lamps and the simplicity of installation have brought germicidal ultraviolet energy universally within reach of industry.

A germicidal lamp is essentially a low-pressure mercury-vapor discharge lamp with special ultraviolet transmitting glass (ordinary glass, such as that used in lamp bulbs and windows is opaque to germicidal energy). Current flows from electrode to electrode through mercury vapor, producing a blue-green visible light, and a wealth of invisible ultraviolet energy, nearly all of which is of wavelengths at which germicidal action is greatest. Many readers may be familiar with the fluorescent lamp rapidly being adopted for certain illumination applications. The 15-watt germicidal lamp is the same as the 15-watt fluorescent lamp except for its more expensive special glass and its lack of fluorescent powder.



3. The four glass containers show the effects of radiation by germicidal lamps of B-coli suspended in air. The first tube shows the number of bacteria collected from a sample of air which was not irradiated. The second tube shows some reduction of bacteria after irradiation for one second. The third tube shows a few bacteria remaining in a sample of air irradiated for five seconds, while the fourth tube shows that no bacteria were present in a sample of air irradiated for ten seconds.

The 15-watt lamp is 18 in. long and 1 in. in diameter. The necessary auxiliary equipment consists of a ballast



Streamlined for sales!

The sleek, modern lines of LUSTEROID rigid-cellulose tubes and vials reduce "sales friction" and give your product maximum penetration into the consumer market. Consumers like the smooth, pleasant surfaces of LUSTEROID packages. And the warm colors of LUSTEROID appeal subtly to their eyes.

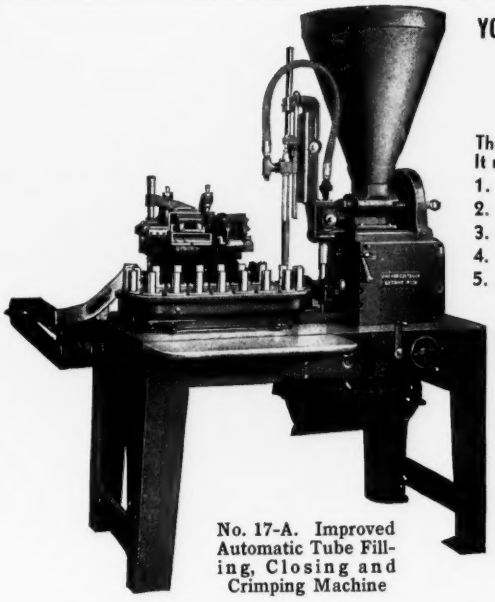
Sales-minded manufacturers of pills, tablets, powders, creams and small objects are using LUSTEROID packages to build consumer acceptance. Others have found that LUSTEROID makes ideal sample packages to bring their products' story home quickly and effectively.

Practical-minded manufacturers use LUSTEROID to save money: on shipping, because LUSTEROID is approximately 75% *lighter* than equivalent glass; on packing and breakage, because LUSTEROID is *unbreakable* and requires no wadding or filling; on labelling, because multicolor labelling is an integral part of the manufacture of a LUSTEROID package.

LUSTEROID is transparent or opaque as you require, comes in any color you wish. Each LUSTEROID package is individually designed, custom-made.

A note or phone call will bring an answer to your packaging problem.

LUSTEROID CONTAINER CO., INC., Parker Avenue W.—South Orange, N. J.
FORMERLY LUSTEROID DIVISION OF THE SILLCOCKS-MILLER COMPANY



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YOUR IMMEDIATE ATTENTION IS CALLED TO THIS *NEW*
No. 17 IMPROVED AUTOMATIC TUBE FILLING, CLOSING AND CRIMPING MACHINE for SEALING COLLAPSIBLE TUBES.
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The famous COLTON CLOSURE machine has been greatly improved and simplified. It now offers you these new advantages:

1. Motor is underneath, out of the way.
2. Equipped with REEVES drive for speed control.
3. New design filling head gives a positive free smooth action of nozzle.
4. Start and stop push button switch.
5. Two hand levers. One for starting the machine proper. One for stopping and starting filling mechanism.

Electric Drive Stirring Device as shown is recommended for materials that do not flow readily in our standard hopper.

All of these improvements—yet no increase in price. Write today for a sample tube and full information on this machine.

ARTHUR COLTON CO.

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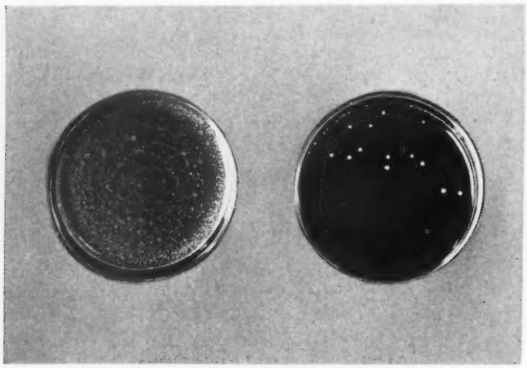
DETROIT MICHIGAN

or choke coil and a starting switch. Since it uses only 15 watts, plus four watts to operate the auxiliary, at the ordinary home rate of four cents per kilowatt hour, a lamp can be operated continuously for more than two and a half days for a nickel.

The 5-watt and 3-watt lamps are similar in output to the larger lamp. The 5-watt lamp emits less energy



4. The effect of a 15-watt germicidal lamp on B-coli on the surface of agar exposed at a distance of 10 in. from the lamp. The plate at the left was not exposed to the energy. The top half of the plate at the right was exposed for 16 seconds and the bottom half was exposed for 32 seconds.

than the 3-watt lamp, but it contains its own auxiliary and can be placed directly into a standard socket.

The rated life of the 15-watt and 5-watt lamps is 1500 hours and that of the 3-watt lamp is 1000 hours. End of life is usually not determined by failure to operate, but rather by decreasing ultraviolet output. The length of life is a function of both the hours of operation and the frequency of starting, with the latter factor more important. Fifteen-watt lamps have tested as high as 60 per cent of initial strength after three thousand hours of continuous operation.

Because a thin film of grease is practically opaque to germicidal energy, the lamp and any reflectors used with them must be cleaned frequently. Depending upon the character of the installation, a cleaning schedule of at least once a week is recommended.

What Germicidal Energy Will Do

As we have noted previously, short-wave ultraviolet energy will kill bacteria. However, in order to be killed, the organisms must be exposed to energy coming directly from the lamps or reflected from a suitable reflecting material such as polished or etched aluminum.* Except in the case of pure clear water, the penetrating power of the energy usually is very small, and therefore it cannot be wholly depended upon for sub-surface sterilization.

The dosage of energy required for killing bacteria is a product of the intensity of the energy and the time of exposure. Different types of bacteria vary in their resistance to the energy, with mold organisms and other spore-formers being especially resistant. Extensive tests on B-coli (test organism frequently used by bacteriologists to test the strength of germicidal agents) have shown the lethal dosage for this organism on a wet surface to be approximately 6600 microwatt seconds per square centimeter of area covered.* The lethal dosage for air-borne B-coli artificially introduced into the air is approximately 1500 microwatt seconds.

If a number of lamps are used and suitable reflecting materials are employed, intensities of several hundred microwatts per square centimeter can be obtained on a flat surface fairly close to the lamps. Intensities can be said generally to vary inversely as the square of the distance, at distances from the lamps large compared with their dimensions.

Applications

Naturally, readers of this article would like to know exactly what effects the energy from the lamps will have in various industrial applications. Unfortunately the subject is so new that each application is a test in itself, and statements of performance must necessarily be of a general character.

Applications of the lamps may be grouped into two general classes. One concerns the elimination or near elimination of undesirable bacteria from an area or space exposed to the energy. The other deals with the protection of articles previously sterilized or coming from a bacteria-free environment against air-borne bacteria.

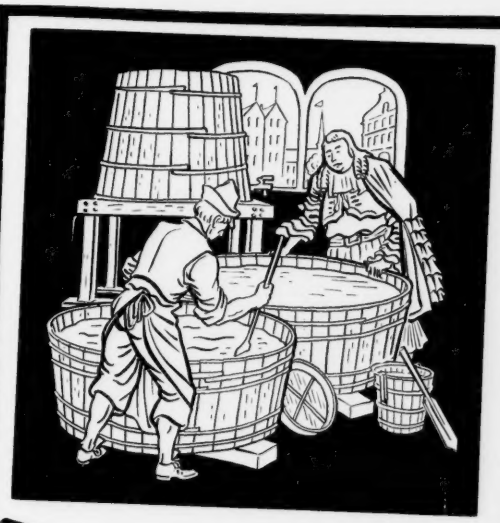
Obviously complete sterilization of large areas and spaces may be difficult to obtain. However, the energy can provide an effective "curtain" or "shower" of protection against air-borne bacteria which otherwise might prove harmful.

Germicidal energy has been found effective in preventing the passage of bacteria from one room to another in hospitals and is being tried in operating rooms as an aid in combating infection. Tests are under way to determine the effectiveness of germicidal lamps in air conditioning apparatus as an aid to public health. Germicidal energy is being used to kill germs on drinking glasses and other utensils. It has been found effective in reducing the bacterial counts on the inside of paper hoods placed over milk bottles and in protecting sterilized bottles until they are filled and capped. Bakeries are trying the energy for preventing mold formation. Several industrial organizations are trying the energy to conquer troublesome air-borne bacteria, both by rendering the air in a room practically free of the organisms and by radiating articles on conveyor systems.

The benefits to be gained from application of germicidal lamps in the packaging of products must largely depend upon the individual cases. However, these new tools are available, and they may prove to be the answer to many a trying problem.

* Many materials which are efficient reflectors of light, reflect practically no ultraviolet energy.

* A microwatt is a millionth of a watt. Therefore 6600 microwatt seconds means 6600 millionths of a watt for one second, 3300 millionths of a watt for two seconds, etc.



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The earliest commercial manufacture of glue can be traced to the time of William III of Holland, when a glue factory was set up in 1690. About 1700 a plant was built in England and a permanent industry was established. Do you know that today Arabol manufactures modern vegetable glues that are efficient, economical and free from objectionable odors? For packaging, Arabol produces special, sweet-smelling, clean adhesives adapted for all types of wrapping, labeling and sealing by hand and machine. Consult Dept. P. about your special adhesive problems.

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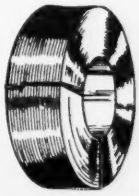

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Address.....
City.....State.....

CARTONING A DELICATE PRODUCT

(*Continued from page 84*)

are then ejected onto a conveyor which carries them to the wrapping machine.

A number of modifications of this mechanism are possible to permit accommodation of differing types of products. Thus if a sift-proof package is required, a heat sealing mechanism may be placed immediately after the lining, folding mechanism and immediately prior to the tucking device. This unit would then heat seal the liner to provide sift-proofness. A cellophane wrapping attachment can be added to the machine, if desired, to wrap completed cartons.

Credit: Machine designed and manufactured by the U. S. Automatic Box Machinery Co., Inc.

PACKAGING INSTITUTE CONVENES

(*Continued from page 64*)

"There are three general classes of containers with respect to form and content. First, containers which are definitely well filled and which are definitely not deceptive. Second, containers which may or may not be thought of as slack filled or deceptive, depending on the state of mind of the consumer. And lastly, containers which are definitely misleading in the eyes of any consumer or honest manufacturer. When I say containers which are misleading, it should, of course, be understood that a container may be inherently misleading, even though it be filled completely with the contents. In this category we find, for instance, such things as certain types of panel bottles. Again a container may be misleading by its failure to contain a sufficient amount of the product to fill it. For instance, a spice package big enough to hold 4 ounces which is only half full, or again an over-size retail carton of a tooth paste which is big enough to hold 2 or 3 tubes instead of the one it contains.

"Naturally, in enforcing the Food, Drug and Cosmetic law, the Food and Drug Administration will give first attention to the third class of containers before attempting to control the intermediate group. Already a fairly large number of seizures have been made of slack filled and deceptive containers in the third class. As representing containers which already have been subject to seizure, I might mention candy in boxes which would ordinarily hold a pound but contain only about 3 ounces; a powdered medicine in a bottle, the label of which completely obscured the amount of fill, and which was only approximately 1/3 full of the medicinal powder; a tooth paste in a carton which was about 3 times bigger than necessary (when I say 3 times bigger than necessary I mean that 3 tubes instead of one could easily have been inserted into the retail carton); and cheese packages which contained about equal quantities of cheese and false bottoms.

"I am mentioning these products as representing extremes. Naturally, as time goes on it will be necessary to consider action against containers which do not exhibit these properties to the extreme degree mentioned. In considering a package from the standpoint of fill and deception, the Food and Drug Administration naturally looks at it again through the eyes of the consumer but must give weight to what might be called engineering difficulties in the production of the package.

"A package may be inherently deceptive due to its shape, form, or the use of an unnecessary amount of material in its manufacture. In this category I am thinking of such items as bottles and jars which employ in their construction a larger amount of glass or other material than is required by good engineering practice to produce a bottle or jar of the required capacity. I am thinking of odd shaped bottles or jars that appear to contain a comparatively large quantity of commodity, when actually the amount so contained is spread out or disbursed in such manner as to create a deceptive appearance. Assuming that a package is constructed like most food, drug and cosmetic packages are constructed, so that the package itself is not deceptive, it may be misused by not filling full and thereby become slack filled. In such a category is a pound candy box which contains only a few ounces of candy; a package of spices which is only half full, or, for instance, a package of cheese which contains a false bottom.

"Naturally, the question of judgment plays a part in the determination as to whether or not a package is slack filled or deceptively constructed. In arriving at a decision in a specific case, the Food and Drug Administration, as I have said before, will look at the package through the eyes of the consumer and will consider as in violation of the law those types of packages which deceive the consumer and on which there are no engineering difficulties preventing the construction of a non-deceptive package.

"The Food and Drug Administration has always been willing to comment on the legality of specific products under the law. This policy is still in effect and to the limit of their ability our Washington and field officials are glad to give you their informal views concerning the legality of specific items. It should be recognized that a comment can be made only on the basis of full and accurate information about the composition and labeling of the product. The Food and Drug Administration has no authority to tell you that you can or cannot market an article. It can only give you an opinion as to whether or not the product will be in violation of the law when shipped in interstate commerce. Such an opinion represents the views of the Food and Drug Administration concerning the probable action which would be taken by the courts if the product should be brought into court.

"Naturally, the comment is not binding on either side. The manufacturer who asks for our views is not compelled to follow them. If he does follow our sugges-

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Send us samples of the stocks you plan to use . . . and we will be glad to give correct recommendations.

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Tooth Powders

Finding just the shape or size of container you want, combined with the exact closure or dispenser you need, is often a problem.

Knowing this, Continental presents a few of the many Tooth Powder cans made for the industry.

We'll be glad to show you others, and if we may, help you with your packaging problem, too.

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tions, and barring the development of facts which were not available at the time the comment was made, the manufacturer can be reasonably sure that his goods are legal under the law.

"In addition to commenting on labels for specific products, the Administration is glad to discuss general policies with an industry, to help them design legal labels in a general class of preparations. All of this work is undertaken on the theory that it is more efficient to inspire voluntary compliance with the law than it is to file formal action against violations of the law after they have occurred."

A spirited discussion followed Mr. Clarke's address with numerous questions being posed from the floor.

Illustrating his address with a series of motion pictures, Allan H. Mogensen discussed the possibility for effective use of works simplification programs in packaging plants. Examples of works simplification projects as applied at the plants of Johnson & Johnson, The Rubberset Co., the Eagle Pencil Co., and others, were used to demonstrate the effectiveness of such methods when training courses have secured the wholehearted cooperation of foremen and other supervisory officers.

OUT OF THE FLOUR SACK

(*Continued from page 62*)

each product by a different color combination. The family flour package is an orchid and yellow plaid, the cake flour, red and yellow, the pancake flour, green and yellow. The plaid design, although it uses primary colors in the main, gives the effect of a pastel because of pencil lines on a white background, and the net result is at once eye-arresting and dainty.

Side panels using varying plain colors, depending upon the major color of the plaid design, are imprinted with recipes and the backs of the packages are also utilized for recipes. Recipes for strawberry shortcake, Parker House rolls, brown gravy and other foods are imprinted on the package for family flour, whereas such appeal was not possible on the sack used previously.

While the remainder of the Centennial cereal line will ultimately appear in the new plaid garb, it will be difficult for them to rival the triple debut of their older sisters. For not only did the three plaids make sales, but they did it during a traditionally dull season for flours, as the hot weather time is not particularly conducive for whipping up cakes, muffins, cookies and the like. Armed with the three handy boxes in the shopping container, salesmen reported progress with new outlets as well as with grocers who had heretofore not bought the product in volume.

Credit: Cartons by Standard Carton Co. Wraps by Lehmann Printing & Lithographing Co. Carry bags by Bemis Bro. Bag Co. Cartoning machinery by Pneumatic Scale Co., Ltd.

FIRE PROTECTION IN PLANTS

(*Continued from page 90*)

material itself, it was decided that a "total flooding" system was the best protection. This type of installation is so laid out that a bank of carbon dioxide cylinders, usually placed in an adjoining room, release their charge of gas through pipes and discharge horns to fill the entire room with enough carbon dioxide to smother the flames. Such a system is practical only where the packaging operation is carried on in a fairly small room, for the amount of gas required to flood a large section means a costly installation.

For ordinary flammable liquid hazards, a one-third dilution of the air is enough to choke any fire. This means that enough gas must be discharged into the space to cut the oxygen content of the air from its normal 21 per cent to 14 per cent or less. Since gasoline, for example, requires an oxygen content of at least 18 per cent to burn, it can be readily seen that such flooding snuffs out the most serious blaze.

Using gasoline as a basis, the handling of other flammable and volatile materials requires the following increases in carbon dioxide capacity, which indicates the relative hazard involved:

Butane or methane	15% increase
Ether	35% increase
Acetylene	75% increase
Ethylene	100% increase
Carbon bisulphide	175% increase

PLASTICS AS DISPLAY MATERIALS

(*Continued from page 69*)

of Bakelite molded by The Richardson Co. N.C.B. display made of Bakelite molded by Harry Davies Molding Co. "Light" display letters of Lucite supplied by E. I. du Pont de Nemours & Co., Inc., and made by Colorvision Ads Inc. Rheingold sign made of Catalin fabricated by Ditglo Products Co. Lauv-Lite display by Lauv-Lite Corp., Lucite material supplied by E. I. du Pont de Nemours & Co., Inc. Window displays designed and produced by W. L. Stensgaard & Associates, Inc., from Monsanto Edge-Glow fluorescent acetate plastic. Krueger display molded of Beetle by Boonton Molding Co. Guillotine display molded by Chicago Molded Products Co. Beech-Nut Beechies display molded by Shaw Insulator Co., ash tray by Kurz-Kasch, Inc., two jars by Colt's Patent Fire Arms Mfg. Co. Eagle Lock display case made of Bakelite molded by Northern Industrial Chemical Co. Topps gum display made of Bakelite molded by Accurate Molding Corp.

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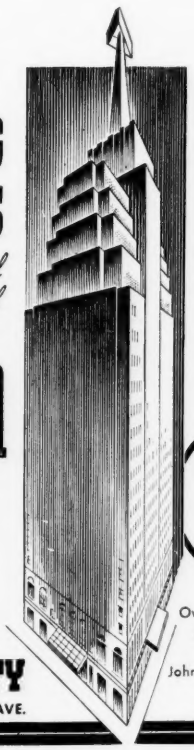

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PROGRESS IN COFFEE PACKAGING

(*Continued from page 54*)

Schnull & Co. took two blue ribbons, their Phoenix can figuring in both awards. The new vacuum can was judged the best individual entry in the can classification and it also won an award in the redesign classification. Continental Can Co. is the manufacturer.

In the family division, Frank G. Shattuck Co., packers of Schrafft's products, was awarded the blue ribbon for their coffee and tea cans. The tea can is square, carries the distinctive Schrafft label printed in red against a light blue background and also has a side panel containing directions for the proper preparation of tea. The coffee

7. An award to this group of Schrafft's products. Red and blue are the colors utilized. The coffee can is lithographed while the tea cans utilize printed labels.

can is lithographed in the same colors and also has directions for preparing the contents. Cans manufactured by Continental Can Co.

The slip-top can, manufactured for Altman & Co. by the Continental Can Co., took the blue ribbon in its classification. Its color is an attractive coffee brown. The Altman label, embellished by delicate scroll work,

8. The McCormick extract bottles are provided with easy-to-grip sides and a firm base to avoid tipping over of the bottle. Labels are executed in blue and red against white.

appears in a cream colored oval. A "lock-top" sealing device is used to protect the flavor.

The blue ribbon for cartons went to Arnold & Aborn for their cellophane wrapped tea carton. Fifty tea bags are packed in the subdued red package. The word "filter-pack" appears in white against a black band and "Aborn's" and "Tea Bags" are in white against the red background.

Bellows & Co. took the blue ribbon in the combination group division. Their entry consisted of spices in attractive glass bottles, tea cartons in various pastel shades and coffee cans, light blue in color, enhanced with intricate scroll work. The glass containers are from Anchor Hocking Glass Co., cork closures from Armstrong Cork Co. and cans by Continental Can Co.

In the glass classification, McCormick & Co. won the blue ribbon for their attractively bottled extracts, food colors and condiments. The brown extract bottles are of unusual firm-seated design and have indentations or grips on the sides so that there is no danger of the bottle slipping when handled. The label is bright blue and red against a white background.

The Paton Corp., packers of Cafe Rico coffee, won a blue ribbon for their counter display which emphasizes quality appeal.

PACKAGE LEGISLATION

(*Continued from page 60*)

is expected to have a profound effect on food distribution practices, according to a report prepared by the American Institute Distribution Inc. The report states in part: "It does not seem likely that this line of reasoning will be upset by the Supreme Court, which may not even accept the A & P case for review although it has been announced that the Supreme Court will be asked to grant an appeal."

This is what the lawyers say this decision means:

Brokerage section of the law is constitutional.

It prohibits a seller from giving to one buyer any benefit of savings resulting from a direct deal when selling services are paid for by another buyer. This definitely establishes the FTC argument that no buyer may legitimately get any part of the brokerage.

Brokerage section is now an independant law. FTC will not have to prove injury to competition in establishing its cases. Congress said that diversion of brokerage does injure competition and FTC will now have to prove only that there has been a diversion.

The only way in which this interpretation can be changed, aside from a Supreme Court decision, is through an amendment to the Robinson-Patman act. An effort to secure passage of an amendment may be made as soon as full significance of this decision is appreciated. Probably this move will come with A & P and the buying organizations working in cooperation with the voluntaries and the retailer-cooperatives.

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The Town House LOS ANGELES
A. S. Kirkeby, Managing Director

Belleview Biltmore BELLEAIR FLORIDA

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BRESKIN PUBLISHING CORPORATION

CHANIN BUILDING • 122 E. 42nd St., New York, N. Y.

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1 LIPSTICK

2 COSMETIC JAR

3 COMPACT

4 CAKE BOX

5 DISPLAY MERCHANDISER

6 RE-USE CONTAINER

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BEETLE PRODUCTS DIVISION OF
AMERICAN CYANAMID COMPANY

30 Rockefeller Plaza • New York, N. Y.

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Beetle

it's all color and in all colors